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US-08-419-652-6 US-07-943-843-4 US-08-347-003-4 US-08-685-118-2

ALIGNMENTS

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Sequence 4, Application US/08599455B
Patent No. 5972621
GENERAL INFORMATION:
APPLICANT: Tartaglia, Louis A.
APPLICANT: Tepper, Robert I.
APPLICANT: Culpepper, Janice A.
TITLE OF INVENTION: METHODS OF IDENTIFYING COMPOUNDS THAT
TITLE OF INVENTION: MODULATE BODY WEIGHT USING THE OB RECEPTOR
NUMBER OF SEQUENCES: 44
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows95
SOFTWARE: FastSEO for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NAMER: US/08/599,455B
FILING DATE: 22-JAN-1996
PRION APPLICATION DATA:
APPLICATION NUMBER: 08/58,153
APPLICATION NUMBER: 08/59,485
FILING DATE: 11-DEC-1995
APPLICATION NUMBER: 08/569,485
FILING DATE: 04-DEC 1995
APPLICATION NUMBER: 08/56,622
RILING DATE: 04-DEC 1995
APPLICATION NUMBER: 08/56,622
FILING DATE: 27-NOV-1995
APPLICATION NUMBER: 08/56,63
FILING DATE: 27-NOV-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                E: Fish & Richardson, P.C. 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Meiklejohn, Ph.D., Anita L. REGISTRATION NUMBER: 35,283
REFERENCE/DOCKET NUMBER: 07334/01.
TELECOMMUNICATION INFORMATION:
TELECHONE: 617-542-6970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 200154
INFORMATION FOR SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
TENTH: 1165 amino acids
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COUNTRY: US
ZIP: -02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
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CITY: Boston
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/cgn2_6/ptodata/2/laa/6B_COMB.pep:*
/cgn2_6/ptodata/2/laa/PCTUS_COMB.pep:*
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Maximum Match 100%
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Pred. No. 0;
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                                                          Query Match
Best Local Similarity 99.8
Matches 799; Conservative
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; MOLECULE TYPE:
; FRAGMENT TYPE:
US-08-599-455B-4
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Sequence 36, Application US/08693697
Patent No. 5869610
GENERAL INFORMATION:
APPLICANT: Snodgrass, H. R.
APPLICANT: Cloffl, Joseph

RESULT 2 US-08-693-697-36

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240
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                               HUMAN HEMATOPOIETIN
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                                                                                                                                                                                                                                  SYSTEM: PC-DOS/MS-DOS
FastSEQ for Windows Version 2.0b
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Mismatches
                                                                                                                                                                                                                                                                                                                                           NAME: Poissant, Brian M.
REGISTRATION NUMBER: 28,462
REFERENCE/DOCKET NUMBER: 8907-0037-999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 4325;
Pred. No. 0;
           Shafer, Alan W.
FENTION: Hu-B1.219, A NOVEL
FENTION: RECEPTOR
                                                                                      ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/693,697
FILING DATE: 05-AUG-1996
Thomas J.
                                                                                                                                                                                                                IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION TELEPHONE: 650-493-4935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.1%;
99.4%;
                                                                                                                                                                                                   Floppy disk
                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        898 amino acids
                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                          650-493-5556
                        TITLE OF INVENTION: HU
TITLE OF INVENTION: REG
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein
FRAGMENT TYPE: internal
                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
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                                                                                                                                                                                                                                OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 796; Conserv
                                                                                                                                      New York
                                                                                                                                                                10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                     USA
                                                                                                                                                                                                   MEDIUM TYPE:
                                                                                                                                                                                                                                                 SOFTWARE:
                                                                                                                                   STATE: N
COUNTRY:
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SOTWARE: FRACED for Windows Version 2.0b
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/693,697
FILING DATE: 05-AUG-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Snodgrass, H. R.
APPLICANT: CLOffi, Joseph
APPLICANT: ZUPANCIC, Thomas J.
APPLICANT: Shafer, Alan W.
TITLE OF INVENTION: Hu-B1.219, A NO
TITLE OF INVENTION: RECEPTOR
NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                       Sequence 33, Application US/08693697
Patent No. 5869610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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internal
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FRAGMENT TYPE:
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                                           Gaps
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APPLICANT: Cloffi, Joseph
APPLICANT: Zupancic, Thomas J.
APPLICANT: Shafer, Alan W.
TITLE OF INVENTION: Hu-B1.219, A NOVEL HUMAN HEMATOPOIETIN
                                         Indels
Score 4325; DE Pred. No. 0; 2; Mismatches
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Best Local Similarity 99.4
Matches 796; Conservative
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                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
URRENT APPLICATION DATA:
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2; Mismatches
                                  E: Pennie & Edmonds
1155 Avenue of the Americas
                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/355,888A FILING DATE: 14-DEC-1994
                                                                                                           ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                                                                                                                                                                                 (212) 790-9090
(212) 869-9741/8864
                                                                                                                                                                                                                                                                                             NAME: Polssant, Brian M.
REGISTRATION NUMBER: 28,462
REFERENCE/DOCKET NUMBER: 72:
                                                                                                                                                                                                                                                                                                                                              ELECOMMUNICATION INFORMATION:
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INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 99.4%;
Matches 796; Conservative
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NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
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3Y: linear
                                                                                 New York
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                                                                                                   USA
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                                                                                                   COUNTRY:
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483 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP 542
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                                 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
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SOFTWARE: FASTESEQ for Windows Version 2.0b
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FILING DATE: 05-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence θ, Application US/08693697
Patent No. 5869610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Snodgrass, H. R.
APPLICANT: Cioffi, Joseph
APPLICANT: Zupancic, Thomas J.
APPLICANT: Shafer, Alan W.
TITLE OF INVENTION: Hu-B1.219,
TITLE OF INVENTION: RECEPTOR
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STREET: 1155 Avenue of the
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99.48;
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REGISTRATION NUMBER: 28
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Best Local Similarity 99.4
Matches 796; Conservative
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COUNTRY: USA
ZIP: 10036-2710
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy di
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3, Application US/08640389A
Patent No. 5912123
GENERAL INFORMATION:
APPLICANT: Snodgrass, H. R.
APPLICANT: Cloffi, Joseph
APPLICANT: Shafer, Alan W
TITLE OF INVENTION: RECEPTOR IN REPRODUCTIVE ORGANS
TITLE OF INVENTION: RECEPTOR IN REPRODUCTIVE BIOLOGY
TITLE OF INVENTION: REGILATING REPRODUCTIVE BIOLOGY
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
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STREET: 115
CITY: New Y
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   COMPUTER: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1. CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/640,389A FILING DATE: 29-ARR-1996 CLASSIFICATION: 435 ATTORNEY APPLICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 4325; DB Pred. No. 0; 2; Mismatches
                                                                                                                                                                                ATTORNEY AGENT INFORMATION:
NAME: Poissant, Brian M.
REGISTRATION NUMBER: 28,462
REFERNCE/DOCKET NUMBER: 8907-032
TELEPHONE: (212) 790-9090
TELEPHONE: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.18;
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                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 960 amino acids TYPE: amino acid
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Best Local Similarity 99.4
Matches 796; Conservative
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10036-2711
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APPLICANT: Cloffi, Joseph
APPLICANT: Cloffi, Joseph
APPLICANT: Shafer, Alan W.
TITLE OF INVENTION: Hu-B1.219, A NOVEL HUMAN HEMATOPOLETIN
TITLE OF ENVENTION: RECEPTOR
TUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER: US/08/693,696
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2; Mismatches
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
ILING DATE: 14-DEC-1994
ATTORNEY/AGENT INFORMATION:
NAME: POISSANT, Brian M.
REGISTRATION NUMBER: 28,462
REFERENCE/DOCKET NUMBER: 7225-078
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                        Sequence 8, Application US/08693696
Patent No. 6005080
GENERAL INFORMATION:
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(212) 869-9741/8864
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INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 99.4%;
Matches 796; Conservative
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TITLE OF INVENTION: VARIANT AND METHODS FOR REGULATING OBESITY
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Pennie & Edmonds LLP
STREET: 1155 Avenue of The Americas
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Cloffi, Joseph
APPLICANT: Cloffi, Joseph
APPLICANT: Shafer, Thomas Joel
APPLICANT: Shafer, Alan Wayne
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TOPOLOGY:
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2; Mismatches
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        SUFTWARE: FEATSED VETSION 2.0 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/588,190 FILING DATE: 18-JAN-1996 CLASSIFICATION: 435 APPLICATION:
                                                                                                                                                               NAME: Poissant, Brian M.
REGISTRATION NUMBER: 28,462
REFERENCE/POCKET NUMBER: 0089
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-493-4935
TELEPAX: 650-493-5556
                                                                                                                                                                                                                                                TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 960 amino acids
TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 99.3
Matches 795, Conservative
Diskette
                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                        single
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APPLICANT: Cioffi, Joseph
APPLICANT: Cioffi, Joseph
APPLICANT: Shafer, Alamas
APPLICANT: Shafer, Alamas
TITLE OF INVENTION: UPTECTION OF A LEPTIN RECEPTOR
TITLE OF INVENTION: VARIANT
TITLE OF INVENTION: AND METHODS FOR REGULATING OBESITY
NUMBER OF SEQUENCES: 4
CORRESPONDENES: Pennie & Edmonds
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COUNTRY: US

ZIP: 10036-2711

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: PatentIn Release #1.0, Version #1.30

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION UNBER: US/08/588,526

FILING DATE: 18-JAN-1996

FILING DATE: 18-JAN-1996
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Pred. No. 0;
2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                 Sequence 3, Application US/08588526
Patent No. 5882860
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REGISTRATION NUMBER: 28,462
REFERENCE/DOCKET NUMBER: 896
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Best Local Similarity 99.1
Matches 794; Conservative
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                QQIDANWNIQCWLKGDLKLFICYVESLFKNİFRNYNYKVHLLYVLFEVLEDSPLVPQKGS
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Patent No. 5912133
GENERAL INFORMATION:
APPLICANT: Cloffi, Joseph
APPLICANT: Lapancic, Thomas J.
APPLICANT: Lapancic, Thomas J.
APPLICANT: Supercy DETECTION OF THE LEPTIN
TITLE OF INVENTION: RECEPTOR IN REPRODUCTIVE ORGANS AND METHODS B
TITLE OF INVENTION: APPLICANT ON THE LEPTIN
TITLE OF SEQUENCES: 16
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1155 Avenue of the Amer
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MEDIUM TYPE: Floppy disk
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; Pred. No. 0;
.0; Mismatches
                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/640,389A
FILING DATE: 29-APR-1996
CLASSIFICATION: 435
ATORNEY/AGENT INFORMATION:
NAME: POISSART, BILAN M.
RESTSTRATION NUMBER: 28,462
REFERENCE/DOCKET NUMBER: 8907-032
                YSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0,
                                                                                                                                                                                             TELEFAX: (212) 869-9741/8864
TELEX: (6141 PENNIE
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS
                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                               98.8%;
99.1%;
                                                                                                                                                                                                                                                                    LENGTH: 1165 amino acids
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Best Local Similarity 99.19
Matches 794; Conservative
                                                                                                                                                                                                                                                                                                                                ; MOLECULE TYPE: peptide US-08-640-389A-11
                                                                                                                                                                                                                                                                                                                    unknown
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                               SOFTWARE
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COMPUTER READABLE FORM:
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CORRESPONDENCE ADDRESS:
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661 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
              GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
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                                                                                                                                                                                                                                                                  TITLE OF INVENTION: DETECTION OF THE LEPTIN
TITLE OF INVENTION: RECEPTOR IN REPRODUCTIVE ORGANS
TITLE OF INVENTION: REGULATING REPRODUCTIVE BIOLOGY
NUMBER OF SEQUENCES: 16
                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION DATA:
FILING DATE:
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Pred. No. 0;
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1155 Avenue of the Americas
                                                                                                                                                                                  Sequence 10, Application US/08640389A
Patent No. 5912123
                                                                                                                                                                                                                   APPLICANT: Snodgrass, H. R.
APPLICANT: Cioffi, Joseph
APPLICANT: Zupancic, Thomas J.
APPLICANT: Shafer, Alan W.
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(212) 869-9741/8864
                                                                                              781 GEIKWLRISSSVKKYYIHGKF 801
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REGISTRATION NUMBER: 28,462
REFERENCE/DOCKET NUMBER: 89
TELECOMMUNICATION INFORMATION:
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INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
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98.8%;
                                                                                                          ATTORNEY/AGENT INFORMATION:
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Best Local Similarity 98.8
Matches 791, Conservative
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MEDIUM TYPE: Floppy
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STATE:
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APPLICANT: Cioffi, Joseph
APPLICANT: Cioffi, Joseph
APPLICANT: Shafer, Alan W.
APPLICANT: Shafer, Alan W.
TITLE OF INVENTION: BETECTION OF THE LEPTIN
TITLE OF INVENTION: RECEPTOR IN REPRODUCTIVE ORGANS
TITLE OF INVENTION: REGILATING REPRODUCTIVE BIOLOGY
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PatentIn Release #1.0, Version #1.30
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STREET: 1155 Avenue of the Americas
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(212) 869-9741/8864
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                                                                                       781 GEIKWLRISSSVKKYYIHGKF 801
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98.8%;
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amino acid
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MEDIUM TYPE: Floppy
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MOLECULE TYPE: peptide
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        APPLICATION NUMBER: US/08/640,389A
FILING DATE: 29-APR-1996
CLASSIPTCATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: POLSSAIL, Brian M.
REGISTRATION NUMBER: 28,462
REFERNCE/CDOCKET NUMBER: 8907-032
TELEPHONE: (212) 799-9090
TELEPHONE: (212) 799-9090
TELEPHONE: (212) 869-9741/8864
TELEX: 66141 PENNIE
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98.8%;
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CURRENT APPLICATION DATA:
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Best Local Similarity 98.8
Matches 791; Conservative
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US-08-640-389A-9
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TITLE OF INVENTION: DETECTION OF THE LEPTIN
TITLE OF INVENTION: RECEPTOR IN REPRODUCTIVE ORGANS AND METHODS FOR
TITLE OF INVENTION: REGULATING REPRODUCTIVE BIOLOGY
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER: US/08/640,389A FTILIG DATE: 29-APR-1996 CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
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Pred. No. 0;
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; Sequence 8, Application US/08640389A
; Patent No. 5912123
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APPLICANT: Cioffi, Joseph
APPLICANT: Zupancic, Thomas J.
APPLICANT: Shafer, Alan W.
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LENGTH:
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                                                                                         RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
                                                                                                                                                                                                                                                            SSVKABITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Snodgrass, H. R.
APPLICANT: Cioffi, Joseph
APPLICANT: Lupancic, Thomas J.
APPLICANT: Shafer, Alan W.
TITLE OF INVENTION: BEDETSCTION OF THE LEPTIN
TITLE OF INVENTION: RECEPTOR IN REPRODUCTIVE ORGANS AND METHODS
TITLE OF INVENTION: REGULATING REPRODUCTIVE BIOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŗ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/640,389A
FILING DATE: 29-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 12, Application US/08640389A Patent No. 5912123 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E: Pennie & Edmonds LLP
1155 Avenue of the Ameri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                           781 GEIKWLRISSSVKKYYIHGKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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STATE: Ne
COUNTRY:
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CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: POISSANT, BILAN M.
REGISTATION NUMBER: 28,462
REFERENCE/DOCKET NUMBER: 8907
TELECOMMUNICATION INFORMATION:
                                                                                                                TELEPHONE: (212) 790-9090
TELERAX: (212) 869-9741/8864
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                    896 amino acids
                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 76.2
Matches 610; Conservative
                                                                                                                                                                                                                                                                         TOPOLOGY: unknown; MOLECULE TYPE: peptide US-08-640-389A-12
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completed: October 22, 2001, 16:05:32
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Job time:
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721 GASLVNFNLTFSWPMSKVSAVESLSAYPLSSSCVILSWTLSPDDYSLLYLVIEWKILNED 780
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APPLICANT: Culpepper, Janice A.
TITLE OF INVENTION: METHODS OF IDENTIFYING COMPOUNDS THAT
TITLE OF INVENTION: MODULATE BODY WEIGHT USING THE OB RECEPTOR
NUMBER OF SEQUENCES: 44
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76.7%; Score 3345; DB 2;
76.0%; Pred. No. 3.6e-298;
clve 73; Mismatches 117;
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SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: U0/JU2/40J
FILING DATE: 08-DEC-1995
APPLICATION NUMBER: 08/56,622
FILING DATE: 04-DEC-1995
APPLICATION NUMBER: 08/56,63
FILING DATE: 27-NOV-1995
ATTORNEY/AGENT INFORMATION:
NAME: Melklejohn, Ph.D., Anita L.
REGISTRATION NUMBER: 35,283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/599,455B
FILING DATE: 22-JAN-1996
                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Fish & Richardson, P.C. STREET: 225 Franklin Street
                                                                                                                                                                                     Sequence 2, Application US/08599455B Patent No. 5972621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 28-DEC-1995
APPLICATION NUMBER: 08/570,142
FILING DATE: 11-DEC-1995
APPLICATION NUMBER: 08/569,485
                                                                                                                                                                                                                                                    Tartaglia, Louis A.
                                           781 GEIKWLRISSSVKKYYIHGKF 801
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781 DGMKWLRIPSNVKKFYIHDNF 801
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TELEPHONE: 617-542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM Compatible OPERATING SYSTEM: Windows
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match
Best Local Similarity 76.0%
Matches 609; Conservative
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INFORMATION FOR SEQ ID NO:
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FRAGMENT TYPE:
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61 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120

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QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS 180
                                                                            LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP 300
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Tue Oct 23 09:32:48 2001

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091a32 gallus gall
057519 xenopus lae
09w6u9 gallus gall
097778 loxodonta a
                                                                                                                                        Q99650 homo sapten
Q8821 mus musculu
Q70458 mus musculu
Q9uq41 homo sapten
Q9uhhs homo sapten
Q9jm58 mus musculu
Q9jm58 mus musculu
Q9jm58 creochromis
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09v396 drosophila
028733 oryctolagus
09v1s8 drosophila
01066 homo saplen
09xz1 paplo anubl
                                                                                                   057520 xenopus lae
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O88488 rattus norv
scrofa
scrofa
                            taurus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBL_raxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
Bennett B.D., Solar G.P., Yuan J.Q., Mathias J., Thomas G.R.
Matthews W.;
Curr. Biol. 6:0-0(0).
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Last annotation update)
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PROSITE; PS01353; HEMATOPO_REC_L_F2; UNKNOWN_1.
PROSITE; PS01355; HEMATOPO_REC_S_F1; UNKNOWN_1.
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Pred. No. 0;
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O97778
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99.8%;
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SEQUENCE 896 AA; 1
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Best Local Similarity
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062960 rattus norv
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09iba7 gallus gall
09i8v6 gallus gall
035773 rattus norv
028606 ovis aries
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09myll macaca mula
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homo sapien
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092920 homo sapien
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    GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries

    protein search, using sw model

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sp_rodent:*
sp_unclassified:*
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sp_human:*
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sp_virus:*
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length: 2000000000
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sp_bacteria:*
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Match Length
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                                                                                           Pfam; PF00041; fn3; 2.
PROSITE; PS01353; HEMATOPO_REC_L_F2; UNKNOWN_I PROSITE; PS01355; HEMATOPO_REC_S_F1; UNKNOWN_I
         Mathias
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99.8%; Pred. No. 0;
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U66496; AAB07496.1;
P16471; 1BP3.
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Best Local Similarity 99.8
Matches 799; Conservative
        Solar G.P.
                                                     InterPro; IPR001777; -
InterPro; IPR002996; -
InterPro; IPR003529; -
InterPro; IPR003531; -
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                     MICQRECVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
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Catarrhin1; Hominidae; Homo
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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799; Conservative
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01-MAR-2001 (TrEMBLrel.
LEPTIN RECEPTOR.
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Best Local Similarity
Matches 796; Conserv
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Catarrhini; Hominidae; Homo.
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Curr. Biol. 6:0-0(0).
EMBL; U66497; AAB07497.1; -.
                                                                                                                                                                                                                                                                                                                             2; Indels
                                                                                                                                                                                                                                                                                  CAA03BEAF2602D0A CRC64;
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Last annotation update)
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PROSITE; PS01353; HEMATOPO_REC_L_F2; UNKNOWN_1.
PROSITE; PS01355; HEMATOPO_REC_S_F1; UNKNOWN_1.
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                                                                        Created)
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Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Primates;
NCBI_TaxID=9606;
                                                                    01-FEB-1997 (TrEMBLrel. 02, 01-FEB-1997 (TrEMBLrel. 02, 01-MAR-2001 (TrEMBLrel. 16, LEPTIN RECEPTOR.
781 GEIKWLRISSSVKKYXIHDHF
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SEQUENCE 1165 AA; 1
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SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

NCBI_TaxID=9606;
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Platika D., Snodgrass H.R.;
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B219/OB RECEPTOR ISOFORM HUB219.3.
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*Novel B19/OB receptor isoforms: possible role of leptin hematopoiesis and reproduction.*;

Nat. Med. 2:585-589(1996).

EMEL; U52914; AAC50511.1; -.

HSSP: P40189; IBGU.
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01-NAR-2001 (TrEMBLrel. 16, Last annotation update)
B219/OB RECEPTOR ISOFORM HUB219.3 PRECURSOR.
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99.4%; Pred. No. 0;
Live 2; Mismatches
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                                                           LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP 300
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QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS
                             FOMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
                                                                                                 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI
                                                                                                                                        VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
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                                                                                                                                                                                                                                                                                                                  TLLWKPLWKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
                                                                                                                                                                                                                                                                                                                                                                                     GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
                                                                                                                                                                                                                                   PDLCAVYAVQVRCKRLDGLGY#SN#SNPAYTVV#DIKVPMRGPEFWRIINGDT#KKEKNV
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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MEDLINE-96206286; PubMed-8616721;
C10ffl J.A., Shafer A.W., Zupancic T.J., Sm. Platika D., Snodgrass H.R.;
I Platika D., Snodgrass H.R.;
I Powel B219/OB receptor isoforms: possible T hematopolesis and reproduction.";
Nat. Med. 2:585-589(1996).
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HSSP; P40189; 1BQU.
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Interpro; IPR002996; ...
Interpro; IPR003529; ...
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B219/OB RECEPTOR ISOFORM
'; 6D51126F33076626 CRC64
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                  UNKNOWN_1
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       Pfam; PF00041; fn3; 2.
PROSITE; PS01353; HEMATOPO_REC_L_F2;
PROSITE; PS01355; HEMATOPO_REC_S_F1;
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Best Local Similarity 99.4%;
Matches 796; Conservative
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906 AA; 103487
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                                 SMART; SM00060; FN3; 1
 InterPro; IPR003531;
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1-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
LEPTIN RECEPTOR SHORT ISOFORM.
BACACA mulatta (Rhesus macaque).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00041; fn3; 2.
PROSITE; PS01353; HEMATOPO_REC_L_F2; UNKNOWN_1.
PROSITE; PS01355; HEMATOPO_REC_S_F1; UNKNOWN_1.
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MEDLINE=98408931; PubMed=9738551;
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NCBI_TaxID=9544;
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                                                                                                                                                                     Cioffi J.A., Shafer A.W., Zupancic T.J., Smith-Gbur J., Mikhail A., Bratika D., Snodgrass H.R.;
"Novel B219/0B receptor isoforms: possible role of leptin inhematopoiesis and reproduction.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalla, Eutherla, Primates, Catarrhini, Hominidae, Homo.
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958 B219/OB RECEPTOR ISOFORM HUB219.1.
109418 MW; C7E0E8D18428677B CRC64;
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                               01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
B219/OB RECEPTOR ISOFORM HUB219.1 PRECURSOR.
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              928
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PROSITE; PS01353; HEMATOPO_REC_L_F2;
PROSITE; PS01355; HEMATOPO_REC_S_F1;
              PRT;
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P40189; 1BQU.
             PRELIMINARY;
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958 AA;
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                                                                                                                NCBI_TaxID-9606;
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Hotta K., Gustafson T.A., Ortmeyer H.K., Bodkin N.L., Hansen B.C.; "Monkey leptin receptor mRNA: sequence, tissue distribution, and mRNA expression in the adipose tissue of normal, hyperinsulinemic, and type 2 diabetic rhesus monkeys.";
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Submitted (JAN-2000) to the EMBL/Genhank/DDBJ databases.
EMBL; AF225873; AAF35387.1;
InterPro; IPR001777;
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Best Local Similarity 95.1%; Pred. No. 0;
Matches 762; Conservative 13; Mismatches 24; Indels
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FROM N.A.
                      TISSUE-ADIPOSE;
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                                                                            QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS
                                                FOMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINNVKPDPP
                                                                                                                                             VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
                                                                                                                                                                  RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
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O9MYK9

O9MTK9;

O9MTK9;

O1-OCT-2000 (TrEMBLrel. 15, Created)

O1-OCT-2000 (TrEMBLrel. 15, Last sequence update)

O1-MAR-2001 (TrEMBLrel. 16, Last annotation update)

LEPTIN RECEPTOR SHORT INSERT ISOFORM.

Macaca mulatra (Rhesus macaque).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosta Mamalla; Butherla; Primates; Catarrhini; Cercopithecidae;

NGBL_TaxID-9544;
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TISSUE-ADIPOSE;
MEDLINE-98408931; PubMed-9738551;
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    B.C.;
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                                                                                                                                                                                                                                                                           MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
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    Hansen
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Hotta K., Gustafson T.A., Ortmeyer H.K., Bodkin N.L., He Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases. EMBL, ARP3539.1; -... InterPro: IPR001777; -...
                                                                                                                                                                          EC09C27EC29C5F3A CRC64;
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                                                                                                                                                                                                                              ; Pred. No. 0;
13; Mismatches
                                                                                                                                                                                                                  94.5%; Score 4125; 95.1%; Pred. No. 0;
                                                                                                               PS01353; HEMATOPO_REC_L_F2;
PS01355; HEMATOPO_REC_S_F1;
                                                                                                                                                                          MW;
                                                                                                                                                                        925 AA; 105721
                                                                                                                                                                                                                  Query Match 94.5%
Best Local Similarity 95.1%
Matches 762; Conservative
                                                          IPR002996; --. IPR003529; -.
                                                                                   IPR003531; -.
                                                                                                 Pfam; PF00041; fn3; 2.
PROSITE; PS01353; HEMA:
PROSITE; PS01355; HEMA:
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480

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Hotta K., Gustafson T.A., Ortmeyer H.K., Bodkin N.L., Hansen B.C.; "Monkey leptin receptor mRNA: sequence, tissue distribution, and mRNA expression in the adipose tissue of normal, hyperinsulinemic, and type 2 diabetic rhesus monkeys.";
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                     719 GASVANFULTFSWPMSKVNIVQSLSAYPLNSSCVILSWILSPSDYKLMYFIIEWKNLNED
         361 VPSKEIVWWMLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
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                                                                                                                                                                                                                   PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
                                                                                                                                                                                                                                                                                   Macaca mulatta (Rhesus macaque).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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the EMBL/GenBank/DDBJ databases.
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Last annotation update)
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PROSITE; PS01353; HEMATOPO_REC_L_F2; UNKNOWN_1.
PROSITE; PS01355; HEMATOPO_REC_S_F1; UNKNOWN_1.
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01-MAR-2001 (TrEMBLrel. 16, Last ann
LEPTIN RECEPTOR LONG INSERT ISOFORM.
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MEDLINE-98408931; PubMed-9738551;
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01-OCT-2000 (TrEMBLrel. 15,
01-OCT-2000 (TrEMBLrel. 15,
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Submitted (JAN-2000) to the
EMBL, AF255874; AAF35388.1;
InterPro; IPR001777; -
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InterPro; IPR003531; -
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Receptor.
SEQUENCE 1194 AA;
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719 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVILSWILSPSDYKLMYFIIEWKNLNED 778
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Mammalla; Eutheria; Primates; Catarrhini; Cercopithecidae;
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
LEPTIN RECEPTOR LONG FORM.
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94.5%; Score 4125; DB 6;
Best Local Similarity 95.1%; Pred. No. 0;
Matches 762; Conservative 13; Mismatches 24;
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                                                                                                                       PRT; 1163 AA.
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PROSITE; PS01355; HEMATOPO REC S F1;
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                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE-98408931; PubMed-9738551;
                                                                                                                                                                                                Macaca mulatta (Rhesus macaque)
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                                        779 GEIKWLRISSSVKKYYIHDHF 799
                           GEIKWLRISSSVKKYYIHGKF
                                                                                                                    PRELIMINARY;
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NCBI_TaxID=9544;
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Receptor.
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Hansen B.C.;

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MW;
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85.9%;
                                   Hu X., Dai R., Li N., Wu C.;
                                          Expression, Detection, and
                                                       Submitted (JUL-1999) to the EMBL; AF167719; AAF89633.1; InterPro; IPR001777; -.
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                                                                                                                             SMART; SM00060; FN3; 1.
                                                                                InterPro; IPR002996;
                                                                                        InterPro; IPR003529;
InterPro; IPR003531;
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848 AA;
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     NCBI_TaxID-9823;
                   SEQUENCE FROM
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                                                             NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF
                                                                                           QQIDANWNIQCWLKGDLKLFICYVESLFRNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS
                                                                                                                          FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
                                                                                                                                   GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sus scrofa (Pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartlodactyla; Suina; Suidae; Sus.
                  5
   Length 1194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9MZS2;
01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
TRANSMEMBRANE LEPTIN RECEPTOR (FRAGMENT).
                 24;
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                13; Mismatches
  4125;
No. 0;
  Score
Pred.
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Query Match
Best Local Similarity 95.1%;
Matches 762; Conservative 1
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                                                                                                                                                                                                                                                                                                                         CVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNSNGHYET
                                                                                                                                                                                                                                                                                                                                                                   67 AVEPKFNSSGTHFSNL-SKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVFQQIDA
                                                                                                                                                                                                                                                                                                                                                                                                                         NWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGSFQMVH
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                                                                                                                                                                                                                                                                                 5;
Partial Cloning of Porcine Leptin
                                                                                                                                                                                                                                                       848;
                                                                                                                                                                                                                                                       Length
                          EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                  Score 3711; DB 6;
Pred. No. 5e-300;
0; Mismatches 70;
                                                                                                                                                                                                            OC5AD3B40B278FAB
                                                                                                       PFONTE; PSO1353; HEMATOPO_REC_L_F2; UNKNOWN_1.
PROSITE; PSO1353; HEMATOPO_REC_L_F2; UNKNOWN_1.
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240 PLGLHMEITDTGNLKISWSSPTLVPFQLQYQVKYSENSTTNMREADEIVSDTSLLVDSVL
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SMART; SM00060; FN3; 1.
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                                                                                               660 PLMKNDSLCSVRSYVVKHHTSRHGTWSEDVGNHTKLTFLWTEQAHSVTVLAVNSIGASSA 719
                                                            NFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNEDGEIKW 785
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Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 408-470 FROM N.A.
MEDLINE-9722487; Pubmed-9069130;
Efrost C.W., Kapke P.A., Yerle M., Rothschild M.F.;
"The leptin receptor gene (LEPR) maps to porcine chromosome 6.";
Mamm. Genome 8:226-226(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1165;
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databases.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sus scrofa (Pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartlodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-UUL-1997 (TrEMBLrel. 04, Created)
01-WAY-1999 (TrEMBLrel. 10, Last sequence update)
01-WAR-2001 (TrEMBLrel. 16, Last annotation update)
TRANSMEMBRANE LEPTIN RECEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85.0%; Score 3709; DB 6;
85.3%; Pred. No. 1.1e-299;
trive 40; Mismatches 76;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  *Porcine leptin (Ob) receptor complete coding Submitted (SEP-1998) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1165 AA; 132548 MW;
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EMBL; U72070; AAC48707.1;
HSSP; P16471; 1BP3.
InterPro; IPR001777; -.
                                                                                                                                                                                      LRISSSVKKYYIHGKF 801
                                                                                                                                                                                                                   Query Match
Best Local Similarity 85.3
Matches 684; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
TISSUE-LIVER;
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                                                                                                                                                                                                                                                                                                                                                                                               002671
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J. Endocrinol. 21:337-345(1998).
EMBL; Y10296; CAA71342.1;
HSSP; P40189; 1BQU.
                                                                                                                                                                    VPDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKN
                                                                                                                                                                                                                                                                                                                                                                                                                               300 PGSSYEVQVRGKRLDGPGIWSDWSTPFTFTQDVIYFPPKILISVGSNISFHCIYKNENR
                                                                                    HRYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSI
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                                                                                                                                                                                                                                                           PSSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciuroqnathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=KK OBESE; TISSUE=BRAIN, HYPOTHALAMUS;
Igel M., Taylor B.A., Phillips S.J., Becker W., Herberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600 600 N -> D. 1162 AA; 130786 MW; 541E77CBB46EC00D CRC64;
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Last sequence update)
Last annotation update)
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PROSITE; PS01353; HEMATOPO_REC_L_F2; UNKNOWN_1.
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Query Match
Best Local Similarity 75.08
Matches 601; Conservative
                                                                           #SSF; Factor;
InterPro; IPR001777; -.
                                                                                                 IPR003529; -.
                                                                                                        InterPro; IPR003531; -
                                                                                                                                         SMART; SM00060; FN3;
 Metazoa;
        Eutheria;
               NCBI_TaxID-10116;
                                                                                                 InterPro;
                                                                                                                                                SEQUENCE
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                                                    FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
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Last annotation update)
            ; Score 3340; DB 11;
; Pred. No. 5.6e-269;
74; Mismatches 117;
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062960;
01-NOV-1996 (TrEMBLrel. 01, C
01-NOV-1996 (TrEMBLrel. 01, L
01-NOV-1996 (TrEMBLrel. 11, L
LEPTIN RECEPTOR.
             76.6%;
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            Query Match 76.6
Best Local Similarity 75.9
Matches 608; Conservative
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Sciurognathi; Muridae; Murinae; Rattus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                       Wang M.Y., Unger R.H.;
Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases
EMBL; U53144; AAB03088.1; -
HSSP: P40189; 1BQU.
                                                                                                                                                                                                                                                                                                                                                                                  CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                           75.3%; Score 3284; DB 11;
75.0%; Pred. No. 1.8e-264;
iive 77; Mismatches 121;
                                                                                                                                                                                                                                                                                                                                                                                  3C93F018A737CC07
                                                                                                                                                                                                                                                                                          Prosite; Pro1353; HEMATOPO_REC_L_F2; UNKNOWN_1.
PROSITE; PS01355; HEMATOPO_REC_L_F2; UNKNOWN_1.
                                                                               SEQUENCE FROM N.A.
STRAIN-SPRAGUE-DAWLEY; TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                  895 AA; 101324 MW;
Chordata;
Rodentia;
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12;
721 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED 780
                            OB-R.
Meleagris gallopavo (Common turkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Meleagrididae; Meleagris.
NCBI_TaxID=9103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         67 AVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFV-STVNSLVFQQIDA:125
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48.3%; Score 2105.5; DB 13; Length 1147;
Best Local Similarity 51.5%; Pred. No. 2.6e-166;
Matches 413; Conservative 127; Mismatches 239; Indels 23; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1133 1133 O -> R.
1147 AA; 129131 MW; 3419787908F734F4 CRC64;
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Submitted (NOV-2000) to the EMBL/GenBank/DDBJ databases.
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"Structure and sequence variation at the human leptin receptor gene in lean and obese Pima Indians."; Hum. Mol. Genet. 6:675-679(1997).
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InterPro; IPR002465; -.
Pfam; PF00041; fn3; 2.
PROSITE; PS01353; HEWATOPO_REC_L_F2; 1.
Obesity; Receptor; Transmembrane; Glycoprotein; Signal; Polymorphism.
SIGNAL 1 ? POTENTIAL.
                                                                                                                                       Roth H., Korn T., Rosenkranz K., Hinney A., Ziegler A., Kunz J., Siegfried W., Mayer H., Hebebrand J., Grzeschik K.-H.; Transmission disequilibrium and sequence variants at the leptin receptor gene in extremely obese German children and adolescents."; Hum. Genet. 103:540-546(1998).
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STRAIN-FVB/N; TISSUE-Spleen;
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          661 TLLMKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI 720
                                                                 721 GASVANFNLFFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED 780
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Devos R., Richards G.J., Campfield L.A., Clark F.T., Deeds J.,
Mult C., Sanker S., Morlarty A., Moore K.J., Smutko J.S.,
Mays G.G., Woolf E.A., Monroe C.A., Tepper R.I.;
"Identification and expression cloning of a leptin receptor, OB-R.";
Cell 83:1263-1271(1995).
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STRIN-NEW ZEALAND OBESE / NZO; TISSUE-Hypothalamus;
MEDLINE-97462708; Pubmed-9322935;
Igel M., Becker W., Herberg L., Joost H.G.;
"Hyperleptinemia, Jeptin resistance, and polymorphic leptin receptor in the New Zealand Obese mouse.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lee G.-H., Proenca R., Montez J.M., Carroll K.M., Darvishzadeh J.G., Lee J.I., Friedman J.M.;
"Abnormal splicing of the leptin receptor in diabetic mice.";
Nature 379:632-635(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                   P48355; 035686; Q61215; Q64309; 054986; 01-FEB-1996 (Rel. 33, Created) 01-FEB-1996 (Rel. 33, Last sequence update) 30-MAY-2000 (Rel. 39, Last annotation update) LEPTIN RECEPTOR PRECURSOR (LEP-R) (OB RECEPTOR) (OB-R) (B219
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STRAIN-C57BL/KSJ: TISSUE-Hypothalamus;
MEDLINE-96190816; Pubwed-8608603;
MEDLINE-96190816 TATATAGlia L.A., WC
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STRAIN-C57BL/KS; TISSUE-Hypothalamus;
MEDLINE-96231997; Pubmed-8628397;
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SEQUENCE FROM N.A. (VARIANTS A AND B)
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MEDLINE-96128129; PubMed-8548812;
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STRAIN-BALB/C; TISSUE-Liver;
MEDLINE-96206286; PubMed-8616721;
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This SWISS-PROT entry is copyright. It is produced through a collaboration
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(VARIANT
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TISSUE SPECIFICITY: (1) VARIANT A: HIGHEST LEVEL OF EXPRESSION IN

LUNG AND KIDNEY, ALSO PRESENT IN CHOROID PLEXUS AND HYPOTHALANUS.

(2) VARLANT B: HIGHEST LEVEL OF EXPRESSION IN HYPOTHALANUS AND

EXPRESSED IN ADIPOSE TISSUE, HYPOTHALANUS, HEART E:

SIMILARITY: ONDIPOSE TISSUE, HYPOTHALANUS, HEART AND TESTES.

SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
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Obesity; Receptor; Transmembrane; Glycoprotein; Signal; Polymorphism;
                                                                                   "Defective STAT signaling by the leptin receptor in diabetic mice."; Proc. Natl. Acad. Sci. U.S.A. 93:6231-6235(1996).
                                                                                                                                                                                                                                     Chua S.C., Koutras I.K., Han L., Liu S.M., Kay J., Young S.J., Chung W.K., Leibel R.L.; "Fine structure of the murine leptin receptor gene: splice site
MEDLINE-96270520; PubMed-8692797;
Ghilardi N., Ziegler S., Wiestner A., Stoffel R., Heim M.H.,
                                                                                                                                                                                                                                                                                                                   suppression is required to form two alternatively spliced transcripts.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         between the Swiss Institute of Bioinformatics and the the European Bioinformatics Institute. There are no re
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MEDLINE=98008913; PubMed=9344648;
                                                                                                                                                               SEQUENCE FROM N.A. (VARIANT E)
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76.0%; Pred. No. 7.9e-236;
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MISSING (IN ISOFORM C).
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"Molecular cloning of rat leptin receptor isoform complementary
DNAs -- identification of a missense mutation in Zucker fatty (fa/fa)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBL_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Phillips M.S., Liu Q., Hammond H.A., Dugan V., Hey P.J., Caskey C.T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A., AND VARIANT FA PRO-269 (VARIANT B).
STRAIN-SPRAGUE-DAWLEY, AND ZUCKER FATTY; TISSUE-Brain;
MEDLINE-96295531; PubMed=8702432;
Ilda M., Murakami T., Ishida K., Mizuno A., Kuwajima M., Shima K.;
"Substitution at codon 269 (glutamine --> proline) of the leptin
receptor (OB-R) CDNA is the only mutation found in the Zucker fatty
                                                                                                                                                                                                                                                                                                                                                                                                                     SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
                                                                                                                                                                                                                                                     601 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
                                                                                                                                                                                                                                                                           TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
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Q62959; Q63007; P70493; P70494; P70495; Q63385; Q63386; O54805;
P97589; O35772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A., AND VARIANT FA PRO-269 (VARIANTS A; B AND STRAIN-SPRAGUE-DAWLEY, AND ZUCKER FATTY;
MEDLINE-96332408; Pubmed-8769097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Leptin receptor missense mutation in the fatty Zucker Nat. Genet. 13:18-19(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-ULL-1999 (Rel. 38, Created)
15-ULL-1999 (Rel. 38, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
LEPTIN RECEPTOR PRECURSOR (LEP-R) (OB RECEPTOR) (OB-R)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A., AND VARIANT FA PRO-269 (VARIANT B).
STRAIN-ZUCKER; TISSUE-Hypothalamus;
MEDLINE-96241565; PubMed-8673096;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biochem. Biophys. Res. Commun. 224:597-604(1996).
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SEQUENCE FROM N.A. (VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LUCATION: RECEPTOR FOR OBESITY FACTOR (LEPTIN).

-1 FUNCTION: THE SHORT FORM (VARIANT A) MAY ACT TO TRANSPORT LEPTIN

-1 FUNCTION: THE SHORT FORM (VARIANT A) MAY ACT TO TRANSPORT LEPTIN

TO THE CEREBROSPINAL FULUD. THE PUTATIVE SOLUBLE RECEPTOR (VARIANT

E) COULD FUNCTION AS A TRANSPORT PROTEIN.

-1 SUBSCELLULATION: TYPE I MEMBRANE PROTEIN. EXCEPT FOR FORM E
WHICH COULD BE SECRETED.

-1 ALTERNATIVE PRODUCTS: 5 ISOFORMS; A, B (SHOWN HERE), C, D AND E;
ARE PRODUCED BY ALTERNATIVE SPLICING.

-1 DISEASE: THE FATIY (FA) MUTATION PRODUCES PROFOUND OBESITY OF
EARLY ONSET CAUSED BY HYPERHARIA, DEFECTIVE NONSHIVERING
THERMOGENESIS, AND PREFERENTIAL DEPOSITION OF ENERGY INTO ADIPOSE
                                                                                                                                                                                         STRAIN-SPRAGUE-DAWLEY, AND ZUCKER FATTY;
MEDLINE-96212906; PubMed-8630068;
Iida M., Windkami T., Ishida K., Mizuno A., Kuwajima M., Shima K.;
"Phenotype-linked amino acid alteration in leptin receptor cDNA from
zucker fatty (fa/fa) rat.;
Biochem. Biophys. Res. Commun. 222:19-26(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-SPRAGUE-DAWLEY;
Chien E.K., Hara M., Rouard M., Yano H., Phillippe M., Polonsky K.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Phenotype of fatty due to Gln269Pro mutation in the leptin receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIINE-96314329; Pubmed-8690163;
Chua S.C. Jr., White D.W., Wu-Peng X.S., Liu S.M., Okada N.,
Kershaw E.E., Chung W.K., Power-Kehoe L., Chua M., Tartaglia L.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -i - SIMILARITY: CONTAINS 3 FIBRONECTIN TYPE III-LIKE DOMAINS.
-i - SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
Karlsson C., Lindell K., Robinson I.C.A.F., Carlsson L.M.S.,
Carlsson B.;
                                 Carlsson B.;
"Cloning of the rat leptin receptor.";
Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Morishita T., Hidaka T., Kuzuyama T., Noguchi T.;
"Analysis of rat leptin receptor gene.";
Submitted (FEB-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Identification of a leptin receptor in islet.";
Submitted (AUG-1996) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (JUN-1997) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                          SEQUENCE FROM N.A., AND VARIANT FA PRO-269 (VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 843-892 FROM N.A. (VARIANT C)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 694-878 FROM N.A. STRAIN-SPRAGUE-DAWLEY; TISSUE-Pancreas;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U52966; AAC52587.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 1-123 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AF007818; AAB63201.1;
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BAA12698.1;
BAA12830.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D85559; BAA12832.1
U60151; AAB06616.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BAA12230.1
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D85557;
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EMBL;
EMBL;
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InterPro; IPR002465; -.
Pfam; PF00041; fn3; 2.
PROSITE; PS01353; HEMATOPO_REC_L_F2; 1.
Obesity; Receptor; Transmembrane; Glycoprotein; Signal; Polymorphism; Alternative splicing.
SIGNAL 1 ? POTENTIAL.
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS 180
 241 LGLHMEITDDGNLKISWSSPPLVPFFLQYQVKYSENSTTVIREADKIVSATSLLVDSILP 300
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360
 1 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 PET -> VTV (IN ISOFORM C).
MISSING (IN ISOFORM C).
DNFIPIEKY -> GMCTVULLIN (IN ISOFORM E).
Q -> P (IN FA).
 FOMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
 (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
 (POTENTIAL)
 (POTENTIAL)
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 (POTENTIAL)
 POTENTIAL)
 Length 1162;
 POTENT 1
 POTENT.
 N-LINKED (GLCNAC. . .) (POTEN
PETFE -> RADTL (IN ISOFORM A)
 BA7AC2CA2D2E62AF CRC64;
 LEPTIN RECEPTOR.
EXTRACELLULAR (POTENTIAL).
 CYTOPLASMIC (POTENTIAL).
 FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
 (IN ISOFORM A)
 76.6%; Score 3342; DB 1; 76.0%; Pred. No. 1.3e-235; iive 74; Mismatches 116;
 Q -> P (IN FA).

T -> M (IN REF. 4).

H -> P (IN REF. 6).

C -> SL (IN REF. 6).

I -> V (IN REF. 8).
 (GLCNAC.
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InterPro; IPR001777; -. InterPro; IPR002465; -.
 12
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846
1162 AA;
 Similarity
 Query Match
Best Local Simi
Matches 609;
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DOMAIN
TRANSMEM
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 01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
115-JUL-1999 (Rel. 38, Last annotation update)
117-JUL-1999 (Rel. 38, Last annotation)
117-JUL-1999 (Rel. 38, Last annotation)
117-JUL-1995 (Rel. 31, Created)
117-JU
VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 PISEPRDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
 SSVKAEITİNIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
 917 AA
 PRT;
 781 GEIKWLRISSSVKKYYIHGKF 801
 :11111 |:1 | 1111 | 179 DGMKWLRIPSNVNKYYIHDNF 799
 STANDARD;
 IL6B_MOUSE
Q00560;
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 IL6B_MOUSE
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SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
TISSUE SPECIFICITY: FOUND IN TISSUES SUCH AS BRAIN, HEART, THYMUS, SPLEEN, KIDNEY, LUNG AND LIVER. FOUND IN ALL THE CELL LINES TESTED EXCEPT BAF-B03. EXPRESSION NOT RESTRICTED TO IL-6-RESPONSIVE
 AND TRANSDUCES THE SIGNAL, DOES NOT BIND IL-6. MAY HAVE A ROLE IN
 FUNCTION: SIGNAL-TRANSDUCING MOLECULE. THE RECEPTOR SYSTEMS FOR IL-6, LIF, OSM, CNTF, AND IL-11 CAN UTILIZE GP130 FOR INITATING SIGNAL TRANSMISSION. BINDS TO IL-6/IL-6-R (ALPHA CHAIN) COMPLEX, RESULTING IN THE FORMATION OF HIGH-AFFINITY IL-6 BINDING SITES,
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
 STRAIN=ICR; TISSUE-Macrophage;
MEDLINE=92291532; PubMed=1602143;
Salto M., Yoshida K., Hibl M., Taga T., Kishimoto T.;
"Molecular cloning of a murine IL-6 receptor-associated signal transducer, qp130, and its regulated expression in vivo.";
J. Immunol. 148:4066-4071(1992)
 SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA CHAIN.
 Mus musculus (Mouse)
 FROM N.A.
 SEQUENCE
 IL6ST
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150 1013 A. N. 32 32 2

635 261

----WKMYEVYDAKSKSVSLPVPDL--CAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMD

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DEVELOPMENTAL STAGE: IN EMBRYONIC STEM CELLS IT IS FOUND FROM DAY 6 OF GESTATION. IT REACHES A PEAK ON DAY 8 AND GRADUALLY DECLINES DURING THE REST OF EMBRYOGENESIS.

SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN. SIMILARITY: CONTAINS 5 FIBRONECTIN TYPE III-LIKE DOMAINS.

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 26;
 PSO1353; HEMATOPO_REC_L_F2; 1.
Transmembrane; Glycoprotein; Immunoglobulin domain; Signal;
 323 STPRVFTTQDVIYF----ENKIVP 362
 363 SKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHHRY 422
 531
 Gaps
 2 SAPRIWLAQALLEFLTTESIGQLLEPCGYIYPEFPVVQRGSNFTAICVLKEACLQHYYVN
 : ||| | | :|| | | :|| 62 ASYIVWKTNHA-AVPREQVIVINRTISSVIFTDV--VLPSVQLT-----CNILSFGQIE
 423 AELYVI------DVNINISC-ETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYC
 474 SDIPSIHPISEPKDCYLQSDGFYECI -- FQPIFLLSGYTMWIRINHSLGSLDSPPTCVLP
 215 VDKVKPTPPYNLSVTNSEELSSILKLSW------VSSGLGGLLDLKSDIQYRT
 532 DSVVKPLPPSSVKAEITINI-GLLKISWEKPVFPENNLQFQIRYGLSG----KEVQ---
 (POTENTIAL)
 (POTENTIAL)
 LINKED (GLCNAC...) (POTENTIAL)
LINKED (GLCNAC...) (POTENTIAL)
LINKED (GLCNAC...) (POTENTIAL)
FCEFD220BC2466F4 CRC64;
 (POTENTIAL)
 (POTENTIAL)
 INTERLEUKIN-6 RECEPTOR BETA CHAIN EXTRACELLULAR (POTENTIAL).
 95; Mismatches 214; Indels 100;
SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
 Length 917;
 CYTOPLASMIC (POTENTIAL)
 IG-LIKE C2-TYPE DOMAIN.
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
 BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
 FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
 6.8%; Score 296; DB 1; 22.8%; Pred. No. 7.1e-14;
 (GLCNAC
 POTENTIAL.
 N-LINKED (N-LINKED (N-LINKED) (N-
 N-LINKED
 102452 MW;
 EMBL; X62646; CAA44515.1; -.
 PRINTS; PR00014; FNTYPEIII.
PROSITE; PS01353; HEMATOPO
 EMBL; M83336; AAA37723.1;
HSSP; P40189; 1BQU.
 Conservative
 MGD; MGI:96560; I16st.
InterPro; IPR001777; -.
InterPro; IPR002465; -.
 476
551
917 AA;
 Pfam; PF00041; fn3;
 Local Similarity
 Matches 121;
 Receptor;
 DOMAIN
TRANSMEM
 CARBOHYD
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CARBOHYD
 DISULFID
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 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
 the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no
 DVGNHTKFTFLWTEQAHTVTVLAINSIGASVANFNLTFSWP-MSKVNIVQSLSAYPLNSS 752
 01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
11-OCT-2000 (Rel. 40, Last annotation update)
11-OCT-2000 (Rel. 40, Rest CHAIN PRECURSOR (IL-6R-BETA) (INTERLEUKIN 6 SIGNAL TRANSDUCER) (MEMBRANE GLYCOPROTEIN 130) (GP130) (ONCOSTATIN RECEPTOR) (CDM130) (CD130 ANTIGEN)
 FUNCTION: SIGNAL-TRANSDUCING MOLECULE. THE RECEPTOR SYSTEMS FOR ILL-6, LIF, OSM, CNTF, AND IL-11 CAN UTILIZE GP130 FOR INITIATING SIGNAL TRANSMISSION. BINDS TO IL-6/IL-6/R (ALPHA CHAIN) COMPLEX, RESULTING IN THE FORMALON OF HIGH-AFFINITY IL-6 BINDING SITES, AND TRANSDUCES THE SIGNAL. DOES NOT BIND IL-6. MAY HAVE A ROLE IN EMBRYONIC DEVELOPMENT (BY SIMILARITY).
 ---TGTELTVNLTNDRYVASLAARNKVGKSAAAV-LTIPSPHVTAAYSVVNLKAFP-KDN 435
262 KDASTWIQVPLEDIMSPRISFTVQDLKPFTEYVFRIRSIKDSGKGYWSDWSEEASGTTYE 321
 636 IKVPMRGPEFWRIINGDTMKKEKNVTLLWKPLMKNDSLCSVQRY -- VINHHTSCNGTWSE
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo
 SUBUNIT: HEPERDOLHER OF AN ALPHA AND A BETA CHAIN.
SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
TISSUE SPECIFICITY: FOUND IN ALL THE TISSUES AND CELL LINES
EXAMINED. EXPRESSION NOT RESTRICTED TO IL-6 RESPONSIVE CELLS.
SIMILARITY: CONTAINS I IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN.
SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
BATABASE: NAME-PROW; NOTE-CD guide CD130 entry;
WWW-"http://www.ncbi.nlm.nih.gov/prow/cd/cd130.htm".
 TISSUE-Myeloma, and Placenta;
MEDLINE-91084844; PubMed-2261637;
H1b1 M., Murakami M., Saito M., Hirano T., Taga T., Kishimoto T., "Molecular cloning and expression of an IL-6 signal transducer,
 753 CVIVSWILSPSDYKLMYFIIEWKNLNEDGEI--KWLRISSSVKKYYIHGK 800
 Bravo J., Staunton D., Heath J.K., Jones E.Y.;
"Crystal structure of a cytokine-binding region of gpl30.";
EMBO J. 17:1665-1674(1998).
 K-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS) OF 122-325.
 918 AA
 PRT;
 MEDLINE-98169383; PubMed-9501088;
 STANDARD;
 Cell 63:1149-1157(1990).
 Homo sapiens (Human)
 SEQUENCE FROM N.A.
 NCBI_TaxID-9606;
 IL6B_HUMAN
 RESULT 5
IL6B_HUMAN
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use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/

or send an email to license@isb-sib.ch).

EMBL; M57230; AAA59155.1;

PIR; A36337; A36337

PDB; 1BQU; 26-AUG-98. MIM; 600694; -. InterPro; IPR001777;

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Transmembrane; Glycoprotein; Immunoglobulin domain; Signal;
 337 PPKILTSVGSNVSFHCIYKK---ENKIVPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTF 393
 444
 92 TDI------ASLNIQLTCNILTFGQLEQNVYGITIISGLPPEKPKNLSCIVNEG--KK 141
 Gaps
 91
 33 PESPVVQLHSNFTAVCVLKEKCMDYFHVNANYIVWKIN-HFIIPKEQYIIINRTASSVTF
 245 TNPSIKSVIILKYNIQYRTKDAST-----WSQIPPEDTASTRSSFTVQDLKPFTEYVFRI
 394 FNLNETKPRGKFTYDAVYCCNEHECHHRYAELYVIDV------NINISC-ETDGYLTK
 445 MTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIHPISEPKDCYLQSDGFYECI--FQP
 142 MRCEWDGG-----RETHLETNFTLKSEWAT-----HKFA---DCKAKRDTPTSCTVDYST
 503 IFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPPSSVKAEITIN----IGLLKISW
 559 EKP----VFPENNLOFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPVPDL--CAVYAVQV
 RCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNVTLLWKPLMKND
 SLCSVQRYVINHHTSCNGTWSEDVGNH----TKFTFLWTEQAHTVTVLAINSIGASVANF
 728 NLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNEDGE--IKW
 (POTENTIAL). (POTENTIAL). (POTENTIAL).
 73;
 (POTENTIAL)
 POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 INTERLEUKIN-6 RECEPTOR BETA CHAIN
 Length 918;
 Indels
 D813F3672DD10D53 CRC64;
 EXTRACELLULAR (POTENTIAL)
 CYTOPLASMIC (POTENTIAL)
 IG-LIKE C2-TYPE DOMAIN
 FIBRONEGTIN TYPE-III. FIBRONECTIN TYPE-III.
 FIBRONECTIN TYPE-III.
 FIBRONECTIN TYPE-III
FIBRONECTIN TYPE-III
SER-RICH.
 DB 1;
 Mismatches 227;
 (GLCNAC.
 Score 277.5; DB 1
Pred. No. 1.6e-12;
 (GLCNAC
 (GLCNAC
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PRINTS; PR00014; FNTYPEIII.
PROSITE; PS01353; HEMATOPO_REC_L_F2; 1.
 N-LINKED
N-LINKED
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N-LINKED
N-LINKED
 POTENTIAL
 N-LINKED
N-LINKED
 N-LINKED
 N-LINKED
 N-LINKED
 82;
 ..
Σ
 6.48; 22.78;
 103522
 Conservative
 786 LRISSSVKKYYIHG 799
 Receptor; Transmembra
Repeat; 3D-structure.
 471 QOEDGTVHRTYLRG
 Best Local Similarity
 AA;
 Matches 112;
 DOMAIN
TRANSMEM
 CARBOHYD
CARBOHYD
 Query Match
 DISULFID
 DISULFID
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GCSR_MOUSE
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 01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
11NTERLEUKIN-6 RECEPTOR BETA CHAIN PRECURSOR (IL-6R-BETA) (INTERLEUKIN
6 SIGNAL TRANSDUCER) (MEMBRANE GLYCOPROTEIN 130) (GP130).
 SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA CHAIN.
SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
TISSUE SPECIFICITY: FOUND IN HEPATOCYTES, ASTROCYTES, FIBROBLASTS
 Pfam; PF00041; fn3; 3.
PROSITE; PS01353; HEMATOPO_REC_L_F2; 1.
Receptor; Transmembrane; Glycoprotein; Immunoglobulin domain; Signal;
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
 Wang Y., Nesbitt J.E., Fuentes N.L., Fuller G.M.; "Molecular cloning and characterization of the rat liver IL-6 signal transducing molecule, gpl30."; Genomics 14:666-672(1992).
 FUNCTION: SIGNAL-TRANSDUCING MOLECULE. THE RECEPTOR SYSTEMS FOR IL-6, LIF, OSH, CNTF, AND IL-11 CAN UTILIZE GP130 FOR INITIATING SIGNAL TRANSMISSION. BINDS TO IL-6/IL-6-R (ALPHA CHAIN) COMPLEX, RESULTING IN THE FORMATION OF HIGH-AFFINITY IL-6 BINDING SITES, AND TRANSDUCES THE SIGNAL. DOES NOT BIND IL-6. MAY HAVE A ROLE IN MERRYONIC DEVELORMENT (BY SIMILARITY).
 (POTENTIAL).
 (POTENTIAL).
 (POTENTIAL)
 (POTENTIAL)
 SIMILARITY: CONTAINS I IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN. SIMILARITY: CONTAINS 5 FIBRONECTIN TYPE III-LIKE DOMAINS. SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
 INTERLEUKIN-6 RECEPTOR BETA CHAIN
 EXTRACELLULAR (POTENTIAL)
 CYTOPLASMIC (POTENTIAL). IG-LIKE C2-TYPE DOMAIN.
 FIBRONECTIN TYPE-III. FIBRONECTIN TYPE-III.
 FIBRONECTIN TYPE-III. FIBRONECTIN TYPE-III. FIBRONECTIN TYPE-III.
 (GLCNAC.
 N-LINKED (GLCNAC.
 N-LINKED (GLCNAC
N-LINKED (GLCNAC
 918 AA.
 SIMILARITY.
SIMILARITY.
 POTENTIAL.
 N-LINKED (
 SER-RICH.
 EMBL; M92340; -; NOT_ANNOTATED_CDS
 MEDLINE-93052397; PubMed-1427893;
 AND ENDOTHELIAL CELLS.
 STANDARD;
 HSSP; P40189; 1BQU.
InterPro; IPR001777;
InterPro; IPR002465;
 Rattus norvegicus (Rat)
 22
918
6618
6618
6618
120
120
120
754
754
181
831
131
 ; A44257
 SEQUENCE FROM N.A.
 NCBI_TaxID-10116;
 TISSUE-Liver
 PIR; A44257
 IL6B_RAT
P40190;
 DOMAIN
TRANSMEM
DOMAIN
 DISULFID
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 Repeat.
 SIGNAL
 9
 DOMAIN
 DOMAIN
 DOMAIN
 DOMAIN
 DOMAIN
 CHAIN
 IL6B_RAT
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25;
 120 ILSGYPPDIPTNLSCIVNEG--KNMLCQ-----LDPGRETYLETNYTLKSEWATE----- 167
 327 VFTTQDVI-----YFPPKILTSVGSNVSFHCIYKKENKIVPSKE---IVWWMNLAE 374
 375 KIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVY----CCNEHECHHRYAELYVI- 428
 -----DVNINISC-ETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH 480
 PISEPKDCYLQSDGFYECI--FQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPL 538
 ---KFPDCRTK-HGTSSCMMGYTPIYFVN-IEVWVEAENALGNVSSEPINFDPVDKVKPS 222
 PPSSVKAEITINI-GLLKISW-----EKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAK 592
 SPRISFIVQDLKPFIEYVFRIRSIKENGKGYWSDWSEEASGIIYEDR-PSKAPSFWYKVN 336
 709 AHTVTVLAINSIGASVANFNLTFSWPMSKV-NIVQSLSAYPLNSSCVIVSWILSPSDYKL 767
 85; Gaps
 14 IFLTTESIGQLVEPCGYIYPEFPVVQRGSNFTATCVLKEKCLQVYSVNATYIVWKTNHV- 72
 01-FEB-1995 (Rel. 31, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
GRANULOCYTE COLONY STIMULATING FACTOR RECEPTOR PRECURSOR (G-CSF-R)
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
 593 SKSVSLPVPDL--CAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIIN
 651 GDTMKKEKNVTLLWKPLMKNDSLCSVQRY -- VINHHTSCNGTWSEDVGNHTKFTFLWTEQ
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
 SEQUENCE FROM N.A.
MEDLINE=90235283; PubMed=2158861;
Fukunaga R., Ishizaka-Ikeda E., Seto Y., Nagata S.;
"Expression cloning of a receptor for murine granulocyte colony-stimulating factor.";
cell 61:341-350(1990).
 Score 270.5; DB 1; Length
Pred. No. 5.1e-12;
8; Mismatches 215; Indels
 837 AA.
 :|:|| |:|: | 3 | 483
 768 MYFIIEWKNLNEDGEI--KWLRISSSVKKYYIHG 799
 STRUCTURE BY NMR OF 225-333.
MEDLINE=97331327; PubMed=9187659;
 98;
 102450 MW;
 01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last seq
 6.2%;
 Matches 116; Conservative
 STANDARD;
 Mus musculus (Mouse)
205
226
382
389
477
552
 Similarity
 NCBI_TaxID=10090;
 CSF3R OR CSFGR.
```

RWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIHPISEPKDCYLQSDGFYECIFQP----144 QWEPGPETHLPTSFI-LKSFRSR------ADCQYQGDTIPDCVAKKRQNNC

448

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503

SIPRKNLLLYQYMAIWVQAENMLGSSESPKLCLDPMDVVKLEPPMLQALDIGPDVVSHQP

-----IFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPPSSVKAEITINI-----

GLLKISWEKPVFPENNL--QFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPVPDLCA----

552 ( 188

301

-VYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEK-----

909

406 AONVILVAYNKAGISSPI---IVVFLENEGPAVIGLHAMAODLNIIWVDWEAPSLLPQGY 462

----NLNEDGEIKWLRISSSVKKYYIH 798

KLMYF11EWK-----

AHTVTVLAINSIGASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSW---ILSPSDY

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 Nat. Struct. Biol. 4:498-504(1997).
-1- FUNCTION: RECEPTOR FOR GRANULOCYTE COLONY-STIMULATING FACTOR. IN ADDITION IT MAY FUNCTION IN SOME ADHESION OR RECOGNITION EVENTS AT THE CELL SURRACE.
 Pfan, PF00041; fn3; 3.
PROSITE; PS01353; HEMATOPO_REC_L_F2; 1.
Receptor: Transmembrane; Glycoprotein; Immunoglobulin domain; Signal;
Yamasaki K., Naito S., Anaguchi H., Ohkubo T., Ota Y.; "Solution structure of an extracellular domain containing the WSxWS motli of the granulocyte colony-stimulating factor receptor and its interaction with ligand.";
 (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 -1- SIMILARITY: CONTAINS 1 IMMUNOSIOBULIN-LIKE C2-TYPE DOMAIN.
-1- SIMILARITY: CONTAINS 5 FIBRONECTIN TYPE III-LIKE DOMAINS.
-1- SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
 POTENTIAL.
GRANULOCYTE COLONY STIMULATING
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 EXTRACELLULAR (POTENTIAL)
 CYTOPLASMIC (POTENTIAL)
 IG-LIKE C2-TYPE DOMAIN.
 SUBUNIT: DIMER (PROBABLE).
SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
TISSUE SPECIFICITY: FOUND IN BONE MARROW.
 FIBRONECTIN TYPE-III. FIBRONECTIN TYPE-III.
 FIBRONECTIN TYPE-III.
 FIBRONECTIN TYPE-III
 FIBRONECTIN TYPE-III
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 SIMILARITY
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 N-LINKED
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N-LINKED
N-LINKED
N-LINKED
 -LINKED (
 93406 MW;
 EMBL; M58288; AAA37673.1; -.
 MGD; MGI:1339755; Csf3r.
 InterPro; IPR000950; -
 InterPro; IPR001777; -
 1GCF; 22-OCT-97.
 IPR002465;
 Repeat; 3D-structure,
 A34898
 582
613
837 AA;
 interPro;
 DOMAIN
TRANSMEM
 DISULFID
 CARBOHYD
 DISULFID
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 DOMAIN
 DOMAIN
 DOMAIN
 CHAIN
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Larsen A., Davis T., Curtis B.M., Gimpel S., Sims J.E., Cosman D., Park L., Sorensen E., March C.J., Smith C.A.;
"Expression cloning of a human granulocyte colony-stimulating factor receptor: a structural mosaic of hematopoietin receptor, immunoglobulin, and fibronectin domains.":
J. Exp. Med. 172:1559-1570(1990).
 Fukunaga R., Seto Y., Mizushima S., Nagata S.; "Three different mRNAs encoding human granulocyte colony-stimulating factor receptor." Acad. Sci. U.S.A. 87:8702-8706(1990).
 01-FEB-1995 (Rel. 31, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
GRANULOCYTE COLONY STIMULATING FACTOR RECEPTOR PRECURSOR (G-CSF-R)
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 Seto Y., Fukunaga R., Nagata S.; "Chromosomal gene organization of the human granulocyte colony-stimulating factor receptor."; J. Immunol. 148:259-266(1992).
---- LIEWEMSSPSYNNSYKSWMIEPNGNITGILLKDNINPFOLY
 836 AA
 MEDLINE=91079757; PubMed=2147944;
 SEQUENCE FROM N.A. MEDLINE=92091782; PubMed=1530796;
 MEDLINE=91062348; PubMed=1701053;
 01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last seq
01-OCT-2000 (Rel. 40, Last anno
 STANDARD;
 Homo sapiens (Human).
 SEQUENCE FROM N.A.
 SEQUENCE FROM N.A.
 (CD114 ANTIGEN).
 rissue=Placenta;
 NCBI_TaxID=9606
 rissue-Placenta;
 GCSR_HUMAN
 099062;
 RESULT 8
GCSR_HUMAN
463
 25;
 337 PPKILTSVGSNVSFHC-IYKKENKIVPSKEIVWWMNLAEKIPQSQYDVVSD--HVSKVTF 393
 394 FNLNETKPRGKFTY-----DAVYCCNEHECHHRYAELYVIDVNINISCETDGYLTKMTC 447
 Gaps
 5.6%; Score 246.5; DB 1; Length 837; 22.4%; Pred. No. 2.5e-10; Live 79; Mismatches 210; Indels 119;
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DOMAINS STRUCTURE

Best Local Similarity 22.4 Matches 118; Conservative

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Query Match

us-09-116-676-10.rsp

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PDPAHSSLGSWYPTIMEDARQLPGLGTPPTTKLTVLEEDE
KKPVPWESHNSSETGCLPTLVQTYVLQGDPRAVSTQPOSQS
GTSDQVLYGQLLGSPTSPGPGHYLRCDSTQPLLAGLTPSPK
 VHGMEALGSF -> APTGRIPSGOVSGTÖLTAAWAPGCPOS
WRRMPSSCPALARHPSPSSQCWRRMKRSRCPGSPITAGRPV
ASPLWSRPMCSRGTQEQFPPSPNPSLAPAIRSFWGSCWAAP
 EGSELHIILGLFGLLLLTCLCGTAWLCCSPNRKNPLWPSV
 SYENLWFQASPLGTLVTPAPSQEDDCVFGPLLNFPLLQGIR
 2AQGQGTISAVTPLSPSWRASPPAPSPMRTSGSRPAPWGPW
 341 LISVGSNVSFHCIYKKE-NKIVPSKEIVWWMNLAEKIPQSQYDVVSD--HVSKVTFFNLN 397
 398 ETKPRGKETYDAVYCCNEHECHRRYAELYVID------VNINISCETDGYLTKMT 446
 94 HTQ------AFLSC----CLNWGNSLQILDQVELRAGYPPAIPHNLSCLMNLTTSSLI 141
 142 CQWEPGPETHLPTSFTLKSFKSRG------NCQTQCDSILDCVPKDGQS 184
 602 -DLCAV----YAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGP----EFWRIIN 650
 702 TFLWTEQAHTVTVLAINSIGASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILS 761
 E -> ELPGPROGOWLGQTSEMSRALTPHPCVQ (IN
 500 -----FQPIFILSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP-----SSVKAEIT
 549 INIGLLKISWERPVFP--ENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPVP----
 447 CRWSTSTIQSLAES-TLQLRYHRSSLYCSDIP9IHPISEPKDCYLQSDGFYECI-----
 GDTMKKEKNVTLLWKPLMKNDSLCSVQRYVINHHTS------CNGTWSEDVGNHTKF
 PRESYFKDQIMLHPAPPNGLICLEPITSVL (IN ISOFORM GCSFR-4/D7).
MISSING (IN ISOFORM GCSFR-4/D7).
 VLYGQLLGSPTSPGPGHYLRCDSTQPLLAGLTPS
 EXTRACELLULAR (POTENTIAL).
 (IN ISOFORM GCSFR-2).
3531ADDC979D4BC3 CRC64;
 CYTOPLASMIC (POTENTIAL) IG-LIKE C2-TYPE DOMAIN. FIBRONECTIN TYPE-III. FIBRONECTIN TYPE-III.
 FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
BY SIMILARITY.
 5.6%; Score 242.5; DB 1;
22.7%; Pred. No. 5e-10;
tive 75; Mismatches 183;
 N-LINKED (GLCNAC.
N-LINKED) (GLCNAC.
N-LINKED) (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED) (GLCNAC.
 ISOFORM GCSFR-3
 N-LINKED
 92156 MW;
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 Conservative
 627
650
650
1117
1227
3327
621
142
2295
3309
93
1128
1134
 836
680
 836
 836 AA;
 Best Local Similarity
Matchés 112; Conserv
 784
680
 622
 DOMAIN
TRANSMEM
 DISULFID
 VARSPLIC
VARSPLIC
 DISULFID
 CARBOHYD
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 SUBUNIT: DIMER (PROBABLE).
SUBCELLUIAR LOCATION: TYPE I MEMBRANE PROTEIN. THE GCSFR-2 FORM,
WHICH LACKS THE TRANSMEMBRANE DOMAIN, MAY REPRESENT A SOLUBLE FORM
 TISSUE SPECIFICITY: ONE OR SEVERAL FORMS HAVE BEEN FOUND IN WYELOGROUS LEUKEMIA CELL LINE KG-1, LEUKEMIA U937 CELL LINE, IN BONE MARROW CELLES, PLACENTA, AND PERIPHERAL BLOOD GRANULCCYTES. THE GESRY-2 FORM HAS BEEN FOUND ONLY IN LEUKEMIA U937 CELLS. THE GESCRY-3 FORM IS HIGHLY EXPRESSED IN PLACENTA. DISEASE: DEFECTS IN CSF3A ARE A CAUGE OF KOSTWANN SYNDROME; ALSO KNOWN AS SEVERE CONGENTAL NEUTROPENIA (SCN) SIMILARITY: CONTAINS 5 FIBRONECTIN TYPE III-LIKE DOMAINS. SIMILARITY: CONTAINS 5 FIBRONECTIN TYPE III-LIKE DOMAINS. SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS. DATABASE: NAME-PROW; NOTE-CD Guide CD114 entry; WWW-*http://www.ncbi.nlm.nlh.gov/prow/cd/cd114.htm*
 Interior, pro0041; fn3; 3.
Pfan: PF00041; fn3; 3.
PROSITE; PS01353; HEMATOPO_REC_L_F2; 1.
Receptor; Transmembrane; Glycoprotein; Immunoglobulin domain; Signal; Repeat; Alternative splicing; 3D-structure.
SIGNAL 1 24 GRANULOCYTE COLONY STIMULATING FACTOR
 ALTERNATIVE PRODUCTS: AT LEAST 4 ISOFORMS; GCSFR-1 (SHOWN HERE), GCSFR-2, GCSFR-3 AND GCSFR-4/D7; SEEM TO BE PRODUCED BY ALTERNATIVE SPLICING.
 Yamasaki K., Naito S., Anaguchi H., Ohkubo T., Ota Y.;
"Solution structure of an extracellular domain containing the WSxWS
motif of the granulocyte colony-stimulating factor receptor and its
interaction with ligand ";
MEDLINE-92007729; PubMed-1717255; Fukunaga R., Ishizaka-Ikeda E., Pan C.-X., Seto Y., Nagata S.; "Functional domains of the granulocyte colony-stimulating factor
 Nat. Struct. Biol. 4:498-503(1997)
 BY NMR OF 227-334.
 EMBL; X55721; CAA39253.1; -.
 EMBO J. 10:2855-2865(1991).
 EMBL; S71484; AAB20660.1; --
EMBL; M59818; AAA63176.1; --
EMBL; M59819; AAA63177.1; --
EMBL; M59820; AAA63178.1; --
 CAA39252.1
 InterPro; IPR000950; -.
InterPro; IPR001777; -.
InterPro; IPR002465; -.
 PIR; JH0329; JH0329.
PIR; JH0330; JH0330.
PIR; A38252; A38252.
 THE RECEPTOR
 PDB; 1AZ7; 28-JAN-98
MIM; 138971; -.
 MEDLINE-97331327;
 EMBL; X55720;
 MIM; 202700;
 STRUCTURE
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Indels 123; Gaps

Length 836;

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396 TFHLPSEAGEVALVAYNSAGTSRPT-PVVFS-*ESRGPALTRLHAMARDPHSLWVGW--E 450
 Pfam; PF00041; fn3; 4.
PROSITE; PS01353; HEMATOPO_REC_L_F2; 1.
Receptor; Transmembrane; Glycoprotein; Immunoglobulin domain; Signal;
 -I- FUNCTION: SIGNAL-TRANSUCING MOLECULE. MAY HAVE A COMMON PATHWAY WITH GP130. THE SOLUBLE FORM INHIBITS THE BIOLOGICAL ACTIVITY OF LIF BY BLOCKNIG TYS BINDING TO RECEPTORS ON TARGET CELLS.
-I- SUBGUNT: HETERODIMER COMPOSED OF LIFE AND GP130.
-I- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. THERE IS A MEMBRANE-BOUND A SECRETED FORM.
-I- ALTERNATIVE PRODUCTS: THE SECRETED AND THE MEMBRANE-BOUND FORMS
MAY ARISE BY ALTERNATIVE SPLICING.
 Gearing D.P., Thut C.J., Vandenbos T., Gimpel S.D., Delaney P.B., King J., Price V., Cosman D., Beckmann M.P., "Leukemia inhibitory factor receptor is structurally related to the IL-6 signal transducer, gpl30."; EMBO J. 10:2839-2848(1991).
 Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo
 LEUKEMIA INHIBITORY FACTOR RECEPTOR EXTRACELLULAR (POTENTIAL).
 (POTENTIAL)
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 (POTENTIAL)
 -1- SIMILARITY: CONTAINS 1 IMMUNGGLOBULIN-LIKE C2-TYPE DOWAIN.
-1- SIMILARITY: CONTAINS 4 FIBRONECTIN TYPE III-LIKE DOMAINS.
-1- SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
 (POTENTIAL)
 01-NOV-1995 (Rel. 32, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
LEUKEMIA INHIBITORY FACTOR RECEPTOR PRECURSOR (LIF-R)
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 MEDLINE-92007727; PubMed-1915266;
 01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last seq
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 EMBL; X61615; CAA43805.1;
 STANDARD;
 762 PSDYKLMYFIIEW 774
 InterPro; IPR000950; -. InterPro; IPR001777; -.
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 Alternative splicing;
SIGNAL 1 44
 (Human)
 451 PPNPWPQGYVIEW
 SEQUENCE FROM N.A.
 TISSUE-Placenta;
 NCBI_TaxID=9606
 Homo sapiens
 LIFR_HUMAN
P42702;
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195 ----ECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPPLGLHMEIT- 248
 90 CYQLEKTSIKIPALSHGDYEITINSLHDFGSSTSKFTLNEQNVSLI-PDTPEILNLSADF 148
 249 DDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIR----EADKIVSATSLL------ 294
 295 --VDSILPGSSYEVQVR----GKRLDGPGIWSDWSTPRVFT---TQDVIYFPPKILTSVG 345
 SNVSFHCIYKKENKIVPSKEIVWWWNLAEKIPQSQYDVV---SDHVSKVTFFNLNETKPR 402
 265 SDITFCCV-----SQEKV----LSALIGHTNCPLIHLDGENVA-IKIRNISVSASS 310
 GKFTYDAVYCCNEHECHHRYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLA---E 459
 311 GT---NVVFTTEDNIFGTVIFAGYPPDTPQQLNCETHD-LKEIICSWNPGRVTALVGPRA 366
 :: | | : :: | : :: | 367 TSYTLVESFSGKYVRLKRAEAPTNES------YQLLFQMLPNQEIYNFTLNAHNPL 416
 626
 523
 687 CNG----TWSEDVGNHTKFTFLWTEQAHTVTVLAINSIGASVANFNLTFSWPMSKVNIV 741
 Gaps
 01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
LEUKEMIA INHIBITORY FACTOR RECEPTOR PRECURSOR (LIF-R) (D-FACTOR/LIF
 | : |: | | | | : | : | STSTLXLKWNDRGSV-PPHRSNVIW---EIKVLRKESMELVKLVTHNTTLNGKDTLHHWS
 35 LLYLMNOVNSO----KKGAPHDLKCVTNNLQVWNCSWKAPSGTGRGTDYEVCIENRSRS
 205 WASDMPLECAIHEVEIRCYIDNLHFSGLEEWSDWSPVKNISWIPDSQTKVFPQDKVILVG
 | | | : : | | | : | | : | | : | | GRSQSTILVNITEKVY-PHTPTSFKVK-DINSTAVKLSWHLPGNFAKINFLCEIEIKKSN
 SYQEQRNVIIKGVE-----NSSYLVAĻDKLNPYTLYTFRIRCS-TETFWKWSKWS
 627 NPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNVTLLWKPLMKNDSLCSVQRYVINHHTS
 524 NKKQHLTTEAS-PSKGPDTWREWSSD----GKNLIIYWKPLPINEA----NGKILSYNVS
 STLQLRYHRSSLYCSDIPSIHPISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSL
 GSLDSPPTCVLPDSVVKPLPPSSVKAEITINIGLLKISWEKP-------VFPEN
 NLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPVPDLCAVYAVQVRCKRLDGLGYWSNWS
 (POTENTIAL).
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(POTENTIAL).
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(POTENTIAL).
 (POTENTIAL)
 Indels 153;
 Length 1097;
 742 QSLSAYPLNSSCVIVSWILSPS---DYKLMYFIIEWKN--LNEDGEIKWLRISSS
 161 LLYVLPEVLEDSPLVPQKGSFQMVHC-----NCS-----VHECC--
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 Query Match 5.1%; Score 221.5; DB 1; Best Local Similarity 20.0%; Pred. Nq. 2.4e-08; Matches 143; Conservative 127; Mismatches 292;
 PRT; 1092 AA
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 STANDARD;
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583 SDQFQPGVRYNFYLYG 698
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 MEDLINE-9434302; Pubmed-8056772;
A Tomida M., Yamamoto-Yamaguchi Y., Hozumi M.;
Tomida M., Yamamoto-Yamaguchi Y., Hozumi M.;
Tomida M., Yamamoto-Yamaguchi Y., Hozumi M.;
Three different CONNa encoding mouse D-factor/LIF receptor.";
J. Blochem. 115:557-562(1994)
C -1- FUNCTION: SIGNAL-TRANSDUCING MOLECULE. MAY HAVE A COMMON PATHWAY
WITH GP130. THE SOLUBLE FORM INHIBITS THE BIOLOGICAL ACTIVITY OF
LIF BY BLOCKING ITS BINDING TO RECEPTORS ON TARGET CELLS.
C -1- SUBUNIT: HETERODIMER COMPOSED OF LIFR AND GP130.
C -1- SUBCLILULAR LOCATION: TYPE I MEMBRANE PROTEIN. THERE IS A
MAY RAISE BY ALTERNATIVE SPLICING.
C -1- ALTERNATIVE PRODOCTS: THE SECRETED AND THE MEMBRANE-BOUND FORMS
C -1- TISSUE SPECIFICITY: PLACENTA, LIVER, KIDNEY, HEART, LUNG, BRAIN,
C -1- TISSUE SPECIFICITY: PLACENTA, LIVER, KIDNEY, HEART, LUNG, BRAIN,
C THE SECRETED FORM.
 PROSITE; PSO1353; HEMATOPO_REG_L_F2; 1.
Receptor; Transmembrane; Glycoprotein; Immunoglobulin domain; Signal; Alternative splicing; Repeat.
 SEQUENCE FROM N.A. (SECRETED FORM).
MEDLINE-92007727; PubMed-1915266,
Gearing D.P., Thut C.J., Vandenbos T., Gimpel S.D., Delaney P.B.,
King J., Price V., Cosman D., Beckmann M.P.;
ILeukemia inhibitory factor receptor is structurally related to the
IL-6 signal transducer, gp130.";
EMBO J. 10:2839-2848(1991).
 Mus musculus (Mouse).
Sukaryota Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_raxID=10090;
 LEUKEMIA INHIBITORY FACTOR RECEPTOR EXTRACELLULAR (POTENTIAL).
 SEQUENCE FROM N.A. (SECRETED FORM).
STRAIN-ICR: TISSUE-Liver;
MEDLINE-94039833; PubMed-7901054;
Tomida M., Yamamoto-Yamaguchi Y., Hozumi M.;
"Pregnancy associated increase in mRNA for soluble D-factor/LIF
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 -1- SIMILARITY: CONTAINS 1 INMUNOSIOBULIN-LIKE C2-TYPE DOMAIN-
-1- SIMILARITY: CONTAINS 4 FIBRONECTIN TYPE III-LIKE DOMAINS.
-1- SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
 CYTOPLASMIC (POTENTIAL). BY SIMILARITY.
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 receptor in mouse liver.";
FEBS Lett. 334:193-197(1993).
 EMBL; S73496; AAC60698.1; -: EMBL; S73495; AAC60697.1; -: EMBL; D26177; BAA05165.1; -: EMBL; D17444; BAA04258.1; -:
 InterPro; IPR000950; -.
InterPro; IPR001777; -.
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 fam; PF00041; fn3;
 SEQUENCE FROM N.A.
 EMBL; D17444; BA
MGD; MGI:96788;
 RECEPTOR)
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 SIGNAL
 DOMAIN
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41;
 178 KGSFQMVHCNCSVHECCECLVPVP-----TAK---LNDTLLMC--LKITSGGVIFQSP- 225
 45 KRGVQDLKCTTNNMRVWDCTWPAPLGVSPGTVKDICIKDRFHSCHPLETTNVKIPALSPG 104
 105 DHEVTINYLNGFQSKFTLNEKDVSLIPETPE1---LDLSADFFTSSLLLKWNDRGSALPH 161
 312 RLDGPGI-----WSDWSTPRVFT---TQDVIYFPPKILTSVGSNVSFHCIYKKENKIVPS 363
 218 HIDSPHFSGYKEWSDWSPLKNISWIRNTETNVFPQDKVVLAGSNMTICC------MSPT 270
 364 KEIVWWM-NLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGK----FTYDAVYCCNEHEC 418
 467
 Ouery Match 4.8%; Score 208; DB 1; Length 1092; Best Local Similarity 19.6%; Pred. No. 2.3e-07; Matches 144; Conservative 125; Mismatches 271; Indels 196; Gaps
 744 LSAYPLNSSCVIVSWILSPS---DYKLMYFIIEWKN--LNEDGEIKWLRISSSVKK---- 794
 ------GNLKISWS-PPLCCHMEITDD---GNLKISWSS-PPLVPF
 266 P--LQYQVKYSENSTTVIREADKIVSATSLL------VDSILPGSSYEVQVRGK
 162 PSNATWEIKVLONPRT---EPVALVLLNTMLSGKDTVQHWNWTSDLPLQCATHSVSIRW-
 271 KVLSGQIGNTLRPLIHLYGQTVAIHI-----LNIPVSENSGTNIIFITDDDV-----
 HHRYAEL----YVIDVNINISCETDGYLTKMTCRWSTSTIQSL----AESTL-----
 163 QLRYHR----SSLYCSDIPSIHPISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINH
 374 SAVEHRIEGLINETYRLGV-QMHPGQEIHN------FILIG------RN
 SLGSLDSPPTCVLPDSVVKPLPPSSVKAEITINIGLLKISWEKP-VFPENNLQFQIRYGL
 577 SGKEVQWKMYEVYDAKSKSVSLPVPDL--CAVYAVQVRCKRLDGLGYWSNWSNPAYTVVM
 635 DIKVPMRGPEFWRIINGDTMKKEKNVTLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSED
 E-ATPSKGPDTWREWSSD----GRNLIVYWKPLPINEA----NGKILSYNVSCS-----
 695 VGNHTKFTFLWTEQAH-----TVTVLAINSIGASVANFNLTFSWPMSKVNIVQS
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 -1- SUBUNIT: DISULFIDE-LINKED HOMODIMER/OLIGOMER. THE FUNCTIONAL HIGH AFFINITY IL-12 RECEPTOR IS COMPOSED OF AT LEAST IL12RB1 AND
 -1- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
-1- SIMILARITY: BELONGS TO THE CLASS II CYTOKINE FAMILY OF RECEPTORS.
-1- SIMILARITY: CONTAINS 4 FIBRONECTIN TYPE III-LIKE DOMAINS.
 01-OCT-2000 (Rel. 40, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
INTERLEURIN-12 RECEPTOR BETA-2 CHAIN PRECURSOR (IL-12 RECEPTOR BETA-
 beta-type cytokine receptor subunits.";
Proc. Natl. Acad. Sci. U.S.A. 93:14002-14007(1996).
-1- FUNCTION: INVOLVED IN IL-12 TRANSDUCTION. BINDS TO IL-12 WITH A
 MEDLINE-97098510; PubMed-8943050; Presky D.H., Yang H., Minetti L.J., Chua A.O., Nabavi N., Wu C.-Y., Gately M.K., Gubler U.; and treceptor complex is composed of two
 PROSITE; PSO1353; HEWATOPO_REC_L_F2; 1.

Receptor: Transmembrane; Glycoprotein: Signal; Repeat_s
SIGNAL 1 20 OR 23 (POTENTIAL).

CHAIN 21 874 INTERLEGEIN-12 RECEPTOR BETA-2 CHAIN.

DOMAIN 21 639 EXTRACELLULAR (POTENTIAL).
 Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostoml;
Mammalla; Eutherla; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 (POTENTIAL)
 (POTENTIAL)
 POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 POTENTIAL)
 POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 582E4D2iBF1FBD67 CRC64;
 CYTOPLASMIC (POTENTIAL)
 FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
 N-LINKED (GLCNAC. .
 GLCNAC.
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 874 AA
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 N-LINKED
 LINKED
 LINKED
 PRT;
 01-OCT-2000 (Rel. 40, Created)
 98196 MW;
 EMBL; U64199; AAB36676.1; -.
 PRINTS; PRO0014; ENTYPEIII.
 HSSP; P40189; 1BQU.
MGD; MGI:1270861; Ill2rb2.
 STANDARD;
 InterPro; IPR001777; -.
 nterPro; IPR002996; -
fam; PF00041; fn3; 4.
 2) (IL-12R-BETA2).
IL12RB2.
 SEQUENCE FROM N.A.
 NCBI_TaxID-10090;
 LOW AFFINITY
 P40189
 I12S_MOUSE
P97378;
 DOMAIN
TRANSMEM
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 SEQUENCE
 CARBOHYD
 CARBOHYD
 CARBOHYD
 DOMAIN
 NOMAIN
 DOMAIN
 DOMAIN
 DOMAIN
T12S_MOUSE
 ISSP:
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the European Bioinformatics Institute. There are no restrictions on its
use by non-profit institutions as long as its content is in no way
modified and this statement is not removed. Usage by and for commercial
entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
 25;
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 295 -YDLRDLRPFTEYEFQISSKLHLSG-GSWSNWSESLRT-----RTPEEEPVGILDIW-YM 346
 142 NISCVQEGENGTVACSWNSGKVTYLKTNYTLQLS-GPNNLTCQ------KQCF-- 187
 492 SDGFYEC-----IFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPPSSVK 544
 545 AEITINIGLLKIS-----WE-KPVFPENNÜGFQIRYGLSGKEVQWKMYEVYDAKSKSV 596
 248 -----INFLNASGSRGTLQWEDEGQVVLNQLRYQPLNSTS-----WNWYNATNAKGK-- 294
 SLPVPDL--CAVYAVQVRCK-RLDGLGYWSNWSNPAYTVVMDIKVPMRGP----EFWRII 649
 433 NISCETDGYLTKMTCRWSTSTIQSLAES-TLQLRYHRSSLYCSDIPSIHPISEPKDCYLQ 491
 650 NGDTMKKEKNVTLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTE-- 707
 ---QAHTVTVLAINSIGASVANFNLTFSWPMSKVNIV-----QAHTVTVLAINSIGAYPLNSSCV 754
 -i- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
-i- SIMILARITY: BELONGS TO THE CLASS II CYTOKINE FAMILY OF RECEPTORS.
-i- SIMILARITY: CONTAINS 3 FIBRONECTIN TYPE III-LIKE DOMAINS.
 Gaps
 01-OCT-2000 (Rel. 40, Created)
01-OCT-2000 (Rel. 40, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
INTERLEUKIN-12 RECEPTOR BETA-2 CHAIN PRECURSOR (IL-12 RECEPTOR BETA-
11.12Rb2.
 EQUINCE FROM N.A.

SEQUENCE FROM N.A.

MEDLINE-9709610; Pubmed-8943050;

Presky D.H., Yang H., Minetti L.J., Chua A.O., Nabavi N., Wu C.-Y.,
Gately M.K., Gubler U.;

"A functional interleukin 12 receptor complex is composed of two
beta-type cytokine receptor subunits.",
Proc. Natl. Acad. Sci. U.S.A. 93:14002-14007(1996).

- Proc. Natl. Acad. Sci. U.S.A. 93:14002-14007(1996).

- Fruction: INVOLVED IN IL-12 TRANSDUCTION. BINDS TO IL-12 WITH P.

LOW AFFINITY.

- LOW AFFINITY.

- COMPOSED OF AI LEAST ILLIEBI AND
 755 IVSWILSP---SDYKLMYFIIEWKNLNEDGEI-----KWLR-----ISSSVKKY 795
 SDNRQNCNRLDLGINLSPDLAESRFIVRVTAINDLGNSSSLPHTFTFLDIVIPLPPWDIR
 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
 Indels 107;
 Length 874;
4.7%; Score 205.5; DB 1;
24.9%; Pred. No. 2.6e-07;
ilve 51; Mismatches 156;
 Best_Local Similarity 24.99
Matches 104; Conservative
 STANDARD;
 Homo sapiens (Human).
```

```
EMBL; L76587; AAB01544.1; -.
EMBL; U22947; AAA75038.1; -.
EMBL; U22924; AAA75039.1; -.
 4.18;
 IPR000950; -.
 InterPro; IPRO0177;
InterPro; IPR002465;
Pfam; PF00041; fn3;
 Query Match
Best Local Similarity
 HSSP; P16471; 1BP3
 NCBI_TaxID=9103;
 interPro;
 DOMAIN
TRANSMEM
 DOMAIN
DOMAIN
DISULFID
DISULFID
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 CARBOHYD
 SEQUENCE
 DOMAIN
 CHAIN
 27;
 332 DVIYFPPKILTSVGSNVSFHCI-----YKKENKIVPSKEIVWWMNLAEKIPQSQYD 382
 ISCETDGYLTKMTCRWSTSTIQSL-AESTLQLRYHRSSLY---CSDIPSIHPISEPKDC- 488
 489 YLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPPSSVKAEI- 547
 KASVSRCTLYWRDEGLVLLN---RLRYRPSNSRL-WNWVNVTKAKGRHDLLDLKPF-TEY 290
 658
 NVTLLWKPLMKNDSLCSVQRYVINHHTSCNG-TWSEDVGNHTKFTFLWTEQAH-TVTVLA 716
 -WSDH-----VSKVTFFNLNETKPRGKFTYDAVYCCNEHECHHRYAELYV---IDVNIN 433
 607
 291 EFQISSKLHLYKGSWSDWSES-----LRAQTPEEEPTGMLDVW-----YMKRHIDYSRQ 339
 -----QSLSAYPLNSSCVIVSWILSPSD-Y 765
 Gaps
 CHAIN
 608 AVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGP----EFWRIINGDTMKK----EK
 548 TINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVAKLPVPDLCAVY
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 4.6%; Score 200.5; DB 1; Length 862; 22.0%; Pred. No. 5.9e-07; tive 79; Mismatches 208; Indels 121;
 INTERLEUKIN-12 RECEPTOR BETA-2
EXTRACELULAR (POTENTIAL).
POTENTIAL.
 11 | :: :|| |: |
32 DVTVKPSHVIL-LGSTVNITCSLKPRQGCFHYSRRNKLILYK------
 N-LINKED (GLCNAC. .) (PO N-LINKED (GLCNAC. .) (PO 67C0E0D946B8DD58 CRC64;
 Glycoprotein; Signal; Repeat.
 CYTOPLASMIC (POTENTIAL). FIBRONECTIN TYPE-III.
 FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
N-LINKED (GLCNAC...)
 KLMYFIIEWKNLNEDGE----IKWLR-----ISSSVKKY 795
 AVQEYVVEWRELHPGGDTQVPLNWLRSRPYNVSALISENIKSY 492
 GLCNAC. . .
 GLCNAC. . .
 (GLCNAC. . .)
 PROSITE; PS01353; HEMATOPO_REC_L_F2; 1.
 POTENTIAL.
 N-LINKED
N-LINKED
N-LINKED
N-LINKED
 N-LINKED
 717 INSIGASVANFNLTFSWPMSKVNIV-
 ₹.
 EMBL; U64198; AAB36675.1;
HSSP; P40189; 1BOU.
 97134
 Receptor; Transmembrane; SIGNAL 1 21
 Query Match 4.6
Best Local Similarity 22.0
Matches 115; Conservative
 Interpro; IPR001777; -. Interpro; IPR002465; -. Interpro; IPR002996; -.
 48
129
166
195
271
 Pfam; PF00041; fn3; 3.
 862 AA;
 601642
 PRLR_MELGA
ID PRLR_MELGA
 CARBOHYD
SEQUENCE
 RANSMEM
 CARBOHYD
 CARBOHYD
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 CARBOHYD
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 CARBOHYD
 CARBOHYD
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 PRLR.
Meleagris gallopavo (Common turkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Meleagrididae; Meleagris.
 TISSUE-Ovary;
Pitts G.R., You S.K., Foster D.N., el Halawani M.E.;
Submitted (MAR.1995) to the EMBL/GenBank/DDBJ databases.
 SEQUENCE FROM N.A.

MEDISOBE-Kiddey;

AMDIINE-97057891; PubMed-8902221;

Zhou J.F., Zadworny D., Guemene D., Kuhnlein U.;

Molecular cloning, tissue distribution, and expression of the prolactin receptor during various reproductive states in Meleagris gallopavo.";
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL
 (POTENTIAL)
 (POTENTIAL
 -1- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
-1- SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
-1- SIMILARITY: CONTAINS 4 FIBRONECTIN TYPE III-LIKE DOMAINS.
 EXTRACELLULAR (POTENTIAL) POTENTIAL.
 FLOW. TECNOSTIC: HEMATOPO_REC_L_F1; 1.
Receptor: Transmembrane; Glycoprotein; Signal; Repeat.
STGNAL. 1
23
 CYTOPLASMIC (POTENTIAL).
 FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
 PROLACTIN RECEPTOR.
 220916320F77FAC1
091094; 091091; 091092;
01-NOV-1997 (Rel. 35, Created)
10-NOV-1997 (Rel. 35, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
PROLACTIN RECEPTOR PRECURSOR (PRL-R) (TPRLR).
 (GLCNAC
 (GLCNAC
 (GLCNAC
 (GLCNAC
 (GLCNAC
 BY SIMILARITY
BY SIMILARITY
 SEQUENCE OF 82-121 AND 473-522 FROM N.A.
 or send an email to license@isb-sib.ch)
 N-LINKED
N-LINKED
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N-LINKED
N-LINKED
N-LINKED
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 N-LINKED
 Biol. Reprod. 55:1081-1090(1996)
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Length 831;

Score 181; DB 1; Pred. No. 1.5e-05;

Ş 831

PRT;

STANDARD;

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HSSP; P16471; 1BP3
 01-AUG-1990
01-AUG-1990
 nterPro;
 CARBOHYD
SEQUENCE
 PRANSMEM
 DISULFID
 DISULFID
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
 CARBOHYD
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 338 PKILTSVGSNVSFHCIYKKENKIV----PSKE--IVWWMNLAEKIPQSQYDVVSDHVSK 390
 -----LD------GGHPTNYTLLYS 268
 229 VQPINMVKPDPPLGLHMEITDDGNLKISWS--SPPLVP-----FPLQYQVKYSENS 277
 119 VDVTSIVQPGSPVNLTLETQRYANIMYLWAKWSPPLLADASSNHLYHYELRLKPEEKEEW 178
 TTVIREADKIVSATSLLVDSILPGSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFP 337
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
 Tanaka M., Maeda K., Okubo T., Nakashima K.;
"Double antenna structure of chicken prolactin receptor deduced from the cDNA sequence."
Blochem. Blochem. Blochys. Res. Commun. 188:490-496(1992).
-I- FUNCTION: THIS IS A RECEPTOR FOR THE ANTERIOR PITUITARY HORMONE
 269 KEGEEOVYE-------CPD---YRTAGPNSCYFDKKHTSFW-----TV
 391 VTFFNLNETKPRGKFTYDAVYCCNEHECHHRYAELYVIDVNINISCETDGYLTKMTCRWS
 451 TSTIQSLAESTLQLRYHRSSLYCSDIPSIHPISEPKDCYL--QSDGFYECIFQPIFLLSG
 549 INIGLIKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPVPDLCAVYA
 Indels 178;
 -1- SUBCELLUTAR LOCATION: TYPE I MEMBRANE PROTEIN.
-1- SIMILARITY: BELONGS TO THE CYTOKINE FAMILY OF RECEPTORS.
-1- SIMILARITY: CONTAINS 4 FIBRONECTIN TYPE III-LIKE DOMAINS.
 179 ETV-----PVGVQTQCKINRLNAGMRYVVQVR-CMLD-PGEWSERSER
 YTMWIRINHSLGSLDSPPTCVLPDSVVKPLPPSSVKAEI -----
 58; Mismatches 123;
 221 -RILISGG-----LSPPEKPTITKCRSPEKETFTCWW----
 01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
PROLACTIN RECEPTOR PRECURSOR (PRL-R) (CPRLP).
 831 AA
 609 VQVRCKRLDGLGYWSNWSNPAYTVVMDIKVP 639
 407 VOIHCKP-DHHGSWSEWSSENY----IEIP 431
 SEQUENCE FROM N.A.
STRAIN-WHITE LEGHORN; TISSUE-Kidney;
MEDLINE-93075121; PubMed-1445292;
 EMBL; D13154; BAA02439.1;
PIR; JQ1655; JQ1655.
 Conservative
 STANDARD;
 Gallus gallus (Chicken)
 252 -----KPG--
 NCBI_TaxID-9031;
 PROLACTIN.
 PRLR_CHICK
Q04594;
 CHICK
Matches
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119 VDVTSIVQPGSPVNLTLETKRSANIMYLWAKWSPPLLADASSNHLYHYELRIKPEEKEEW 178
 412
 229 VQPINMVKPDPPLGLHMEITDDGNLKISWS--SPPLVP-----FPLQYQVKYSENSTT 279
 280 VIREADKIVSATSLLVDSILPGSSYEVQVRGKRLDGPGIWSDWSTPR---VFTTQDVIYF 336
 ---ETISVGVQTQCKINRLNAGMRYVVQVR-CTLD-PGEWSEWSSERHILIPSGQS---- 229
 307
 367
 Gaps
 337 PPKILTSVGSNVSFHCIYKKENKIVPSKE--IVWWMNLAEKIPQSQYDVVSDHVSKVTFF 394
 395 NLNETKPRGKFTYDAVYCCNEHECHHRYAELYVIDVNINISCETDGYLTKMTCRWSTSTI 454
 ----TINIGEL 554
 455 QSLAESTLQLRYHRSSLYCSDIPSIHPISEPĶDCYLQSDGFYECIFQPIFLLSGYTMWIR
 273 EQVYE------CPD-----YRTAGPNSCYFDKK---HTSFWTI----YNITVR
 -----GCHPTNYTLLYSKEGE
 308 ATNEMGSNSSDPHYVDVTYIVQPDPPVNVTLELKKPINRKPYLVLTWSPPPLADVRSGWL
 555 KISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPVPDLCAVYAVQVRCK
 ---YIIQIHCK
 (POTENTIAL). (POTENTIAL). (POTENTIAL).
 4.1%; Score 178; DB 1; Length 831;
20.4%; Pred. No. 2.5e-05;
Live 55; Mismatches 133; Indels 166;
 (POTENTIAL)
 (POTENTIAL)
 (POTENTIAL)
 Signal; Repeat:
 PROLACTIN RECEPTOR,
EXTRACELLULAR (POTENTIAL)
 CYTOPLASMIC (POTENTIAL).
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
FIBRONECTIN TYPE-III.
BY SIMILARITY.
 1C4E75791DCADBE9 CRC64;
 368 TLEYELRLKPEEGEEWETIF - VGQOTQYKMFSLNPGKK --
 N-LINKED (GLCNAC
N-LINKED (GLCNAC
 (GLCNAC
 (GLCNAC
 2029 AA
 (Rel. 15, Created)
(Rel. 15, Last sequence update)
 SIMILARITY
 515 INHSLGSLDSPPTCVLPDSVVKPLPPSSVKAEI---
 POTENTIAL.
 POTENTIAL.
 N-LINKED
 PRT;
 615 RLDGLGYWSNWSNPAYTVVWDIKVP 639
 413 P-DHHGSWSEWSSENY----IQIP 431
 335 P
94102 MW;
 Pfam; PF00041; fn3; 4.
PROSITE; PS01352; HEMATOPO_
 Query Match
Best Local Similarity 20...
Best Local Similarity
Local Similarity
Local Similarity
IPR00177; -.
 Receptor; Transmembrane;
 STANDARD;
 ----KPG----
 LAR_DROME
P16621;
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21;

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CHAIN
DOMAIN
TRANSMEM
 ACT_SITE
 ACT_SITE
 DISULFID
 DISULFID
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 The transmembrane tyrosine phosphatase DLAR controls motor axon guidance in Drosophila.";

Leal 84:611-627(1996).

Cell 84:611-627(1996).

The Cell 84:611-627(1996).

The Cell 84:611-627(1996).

The Cell 84:611-627(1996).

The Cell 84:611-627(1996).

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 AND
 Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pteryyota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
 MEDLINE=90046860; PubMed=2554325;
Streuli M., Krueger N.X., Tsai A.Y.M., Saito H.;
"A family of receptor-linked protein tyrosine phosphatases in humans
01-OCT-2000 (Rel. 40, Last annotation update)
PROTEIN-TYROSINE PHOSPHATASE DLAR PRECURSOR (EC 3.1.3.48) (PROTEIN-
TYROSINE-PHOSPHATE PHOSPHOHYDROLASE).
 MEDLINE-96178473; PubMed-8598047;
Krueger N.X., van Vactor D., Wan H.I., Gelbart W.M., Goodman C.S.
Salto H.;
 PRINTS; PRO0014; FNTYPEIII.
PRINTS; PRO0700; PRTYPHPHTASE.
PROSITE; PS00383; TYR_PHOSPHAYASE_1; 2.
PROSITE; PS50056; TYR_PHOSPHATASE_2; 2.
PROSITE; PS50055; TYR_PHOSPHATASE_PTP; 2.
Hydrolase; Receptor; Glycoprotein; Signal; Transmembrane; Cell adhesion; Immunoglobulin domain; Duplication.
 ŗ
 Proc. Natl. Acad. Sci. U.S.A. 86:8698-8702(1989)
 Drosophila melanogaster (Fruit fly).
 AAC47002.1; -. AAC47002.1; JOINED.
 AAC47002.1; JOINED.
AAC47002.1; JOINED.
AAC47002.1; JOINED.
 AAC47002.1; JOINED. AAC47002.1; JOINED.
 AAC47002.1; JOINED
 Pfam; PF00102; Y_phosphatase; Pfam; PF00041; fn3; 9. Pfam; PF00047; 1g; 3.
 EMBL; M27700; AAA28668.1; -.
 'lyBase; FBgn0000464; Lar.
InterPro; IPR000242; -.
 .nterPro; IPR001777; -.
 nterPro; IPR003006; -
 "IR; A36182; TDFFLK.
 SEQUENCE FROM N.A.
 InterPro; IPR000387
 SEQUENCE FROM N.A.
 STRAIN-CANTON-S;
 and Drosophila."
 P28827;
 U36856;
 036852
 EMBL;
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218 GGVIFQSPLMSVQPINMVKPDPPL-----GLHMEITDDGNLKISWSSPPLVPFPLQYQ- 270
 146 PGTRVIEVGHTVLMTCKAIGNPTPNIYWIKNQTKVDMSNPRYSLKDGFLQIENSREEDDG 205
 Gaps
 271 --VKYSENSTTVIREADKIVSATSLL------VDSILPGSSYE---VQVRGKRLDGPG 317
 360 IVPSKEIVWWMILAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECH 419
 -- PMPHVKWMKGSEDLTPENEMPIGRNVLQLI---NIQES------ANYICIAASTL 307
 474
 DIPSIHPISEPKDCYLQSDGFYECIFQPIFLLSGYTMW----IRINH-SLGSLDSPPTCV 529
 EISGI------ITMYYVVRALSPYTEYEFYVIAVNNIGRGPPSAPATCT 410
 642
 318 IW-----SDWSTPRVFTTQDVIYF------PPKILTSV--GSNVSFHCIYKKENK
 420 HRYAELYVIDVNINISCETDGYLTKMTC-----RWSTSTIQSLAESTLQLRYHRSSLYCS
 530 LPDSVVKPLPPSSVKAEITINIGLLKISWEKPVFPENNLQ-FQIRYGLSGK--EVQWKMY
 EVYDAKSKSVSLPVPDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIK----VPMRG
 (POTENTIAL)
(POTENTIAL)
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(POTENTIAL)
(POTENTIAL)
 POTENTIAL)
 Indels 159;
 Ouery Match 3.8%; Score 166.5; DB 1; Length 2029; Best Local Similarity 18.7%; Pred. No. 0.00056; Matches 123; Conservative 119; Mismatches 257; Indels 159;
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FIBRONECTIN TYPE-III 6.
FIBRONECTIN TYPE-III 7.
FIBRONECTIN TYPE-III 8.
FIBRONECTIN TYPE-III 8.
FIBRONECTIN TYPE-III 9.
PROPEIN-TYROSINE PHOSPHATASE.
PROTEIN-TYROSINE PHOSPHATASE
 MW; 536A0C794D3DC800 CRC64;
 CYTOPLASMIC (POTENTIAL).
IG-LIKE C2-TYPE DOMAIN.
IG-LIKE C2-TYPE DOMAIN.
IG-LIKE C2-TYPE DOMAIN.
FIBRONECTIN TYPE-III 1.
FIBRONECTIN TYPE-III 2.
 EXTRACELLULAR (POTENTIAL)
 FIBRONECTIN TYPE-III 3 FIBRONECTIN TYPE-III 4
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962 962
1183 1183
1304 1304
2029 AA; 229027 M
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| QY 043 PERWALINGDIMKREKNYTELM-KPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKF 701 | 519 SNFRATDIGETAVTLQWTKPTHSSENIVHYELYWNDTYANQAHH 562 |        | 563 KRISNSEAYTLDGLYPDTLYYIWLAARSQRGEGATTPPIPVRTKQYVPGAP 613 | 742 -QSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNEDGEIKWLRISSSV 792 | 614 PRNITAIATSSTTISLSWLPPPVERSNGRIIYYKVPFVEVGREDDEATTMTLNWTSIV 671 |
|-------------------------------------------------------------------------|------------------------------------------------------|--------|-------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------|
| 43 PE                                                                   | 19 SNE                                               | 02 TFL | 63 KRI                                                      | 42 -0s                                                       | 14 PRN                                                             |
| λ                                                                       | Db 5                                                 | 0γ 7   | S qa                                                        | Ογ 7.                                                        | 9 qa                                                               |

Search completed: October 22, 2001, 16:07:46 Job time: 190 sec

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October 22, 2001, 16:03:50 ; Search time 24.21 Seconds (without alignments) 2013.287 Million cell updates/sec
 1 MICORFCVVLLHWEFIYVIT......WLRISSSVKKYYIHGKFTIL 804
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 412676
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/SIDS8/gcgdata/geneseq/geneseqp/AA1988
 /qcqdata/qeneseq/qeneseqp/AA199
GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
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 /SIDS8/gcgdata/geneseq/geneseqp/AAl9
 /SIDS8/gcgdata/geneseq/geneseqp/AA1
/SIDS8/gcgdata/geneseq/geneseqp/AA1
 Total number of hits satisfying chosen parameters:
 412676 seqs, 60623988 residues
 OM protein - protein search, using sw model
 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
 /SIDS8/gcgdata/geneseg/
 /SIDS8/gcgdata/geneseg
 /SIDS8/gcgdata/geneseg
 BLOSUM62
Gapop 10.0 , Gapext 0.5
 Minimum DB seq length: 0
Maximum DB seq length: 2000000000
 US-09-116-676-10
 A_Geneseq_0601:*
 SIDS8
 SIDS8
 Title:
Perfect score:
 Scoring table:
 Database :
 Sequence:
 Searched:
 Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

| Description                   | Obesity recentor p | Obesity receptor p | Human WSX receptor | Human WSX receptor | Obesity recentor C | Obesity receptor A | Obesity recentor B | Human WSX recentor | Peptide Sed ID No: | Obesity recentor D | Human OB-R variant |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| SUMMARIES                     | AAW34501           | AAW34502           | AAW24052           | AAW24053           | AAW34499           | AAW34497           | AAW34498           | AAW24051           | AAY13474           | AAW34500           | AAW50003           |
| DB                            | 18                 | 18                 | 18                 | 18                 | 18                 | 18                 | 18                 | 18                 | 20                 | 18                 | 18                 |
| %<br>Query<br>Match Length DB | 804                | 839                | 896                | 923                | 970                | 972                | 666                | 1165               | 1:165              | 1220               | 896                |
| %<br>Query<br>Match           | 100.0              | 99.4               | 99.4               | 99.4               | 99.4               | 99.4               | 99.4               | 99.4               | 99.4               | 99.4               | 99.1               |
| Score                         | 4363               | 4337               | 4337               | 4337               | 4337               | 4337               | 4337               | 4337               | 4337               | 4337               | 4325               |
| Result<br>No.                 | -                  | 7                  | m                  | 4                  | s                  | 9                  | 7                  | œ                  | .6                 | 10                 | 11                 |

Obesity protein receptor(s) and related DNA - used to treat weight disorders, e.g. obesity, diabetes and high cholesterol or blood

Welcher AA;

Chang M, Fletcher FA, WPI; 1997-384981/35. N-PSDB; AAT98534.

(AMGE-) AMGEN INC.

|          | 3007     | •         | 3        | ,    |            |                    |
|----------|----------|-----------|----------|------|------------|--------------------|
| 13       | 4325     | 7 0       | 900      | 9 9  | AAW50002   |                    |
| 7.7      | 430E     | ٠ ٥       | 9 4 9    | 9 0  | 110101011  | 9 6                |
| 15       | 4325     | 0.0       | 9.50     | 2 00 | AAW1911    | Human OB-R Leptin  |
| 16       | 4325     | 66        | 958      | 18   | AAW22773   | T O C C            |
| 17       | 4323     | 66        | 1165     | 18   | AAW19116   |                    |
| 18       | 4322     | 66        | 868      | 17   | AAR88912   | Haematopoietin rec |
| 19       | 4322     | 66        | 908      | 17   | AAR88911   | Haematopoietin rec |
| 20       | 4322     | 66        | 096      | 17   | AAR88910   | Haematopoietin rec |
| 21       | 4315     |           | 806      | 18   | AAW19536   | Variant form of hu |
| 22       | 4296     | 86        | 896      | 18   | AAW14841   | Human haemopoietin |
| 23       | 4214     |           | 815      | 20   | AAY05701   | Human OB receptor  |
| 24       | 3900     | 8         | 1221     | 19   | AAW62544   | Human              |
| 25       | 3355     | 9/        | 802      | 18   | AAW221061  | Murine leptin rece |
| 56       | 3345     | 16        | 894      | 18.  | AAW24064   | Murine WSX recepto |
| 27       | 3345     |           | 894      | 18   | AAW19114   | Murine short form  |
| 58       | 3345     | 16        | 006      | 18   | AAW22105   | Murine leptin rece |
| 29       | 3345     | 92        | 1162     | 18   | AAW19115   | Murine long form O |
| 30       | 3345     | 16        | 1162     | 20   | AAY13473   | Peptide Sed ID No: |
| 31       | 3342     | 26        | 892      | 18   | AAW34260   | Rat ob receptor is |
| 32       | 3342     | 16        | 894      | 18   | AAW37337   | Ob protein recepto |
| 33       | 3342     | 9.9/      | 895      | 18   | AAW34258   | Rat ob receptor is |
| 34       | 3342     | 16        | 1162     | 18   | AAW34257   | Rat wild-type ob r |
| 35       | 3342     | 9.9/      | 1162     | 18   | AAW23398   | _                  |
| 36       | 3336     | 76.       | 894      | 18   | AAW37338   | Ob protein recepto |
| 37       | 3336     | 16        | 1162     | 18   | AAW23399   | Rat ob receptor (f |
| 38       | 3143     | 72        | 783      | 18   | AAW24054   | Murine WSX recepto |
| 39       | 3039     |           | 842      | 18   | AAW22102   |                    |
| 40       | 2772     | 63        | 1015     | 18   | AAW34259   |                    |
| 41       | 2665     | 61        | 883      | 19   | AAW62543   | Human ob-receptor  |
| 42       | 1151     | 26.       | 235      | 19   | AAW62545   | Soluble leptin bin |
| 43       | 570      | 13.       | 581      | 18   | AAW22103   |                    |
| 44       | 564      | _         | 319      | 18   | AAW22104   | Murine leptin rece |
| 45       | 351      | œ         | 1158     | 71   | AAY92205   | Fusion polypeptide |
| `        |          |           |          |      |            |                    |
|          |          |           |          |      | ALIGNMENTS |                    |
|          |          |           |          |      |            |                    |
| RESULT   | 1        |           |          |      |            |                    |
| ָרָ רְּי | AAW34501 | standard; | protein; |      | 804 AA.    |                    |
| XX       |          |           |          |      |            |                    |

Obesity receptor; human; OB receptor; OB receptor/OB protein complex; high blood lipid level; obesity; diabetes; high cholesterol level; weight loss; therapy; weight maintenance; splice variant. Obesity receptor protein splice variant. 96US-0774414. 96US-0582825. 97WO-US00128 18-MAR-1998 (first entry) W09725424-A1 02-JAN-1997; 31-DEC-1996; 04-JAN-1996; Homo sapiens 17-JUL-1997 AAW34501; 

781 geikwlrisssvkkyyihgkftil 804

```
receptor protein. This sequence has one or more of the biological properties of naturally occurring OB receptor protein. The OB receptor proteins and OB receptor/OB protein complexes are used for the treatment of obesity, diabetes, high blood lipid levels and high cholesterol levels. The proteins may also be used to treat an individual for weight loss or weight maintenance required for purely cosmetic purposes.
 1 MICORFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
 represents a natural splice variant of the obesity
 0; Indels
 DB 18;
 Score 4363; IPred. No. 0;Mismatches
 Claim 4; Page 89; 151pp; English.
 100.0%;
 Matches 804; Conservative
 Local Similarity
 804 AA;
 sednence
 Sequence
 Query Match
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 61
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Gaps

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Length 804;

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96US-0774414
96US-0582825
 Ouery Match 99.4%;
Best Local Similarity 99.8%;
Matches 799; Conservative
 97WO-US00128
 Chang M, Fletcher FA,
 WPI; 1997-384981/35.
N-PSDB; AAT98532.
 (AMGE-) AMGEN INC
 Disclosure; Page
 02-JAN-1997;
 31-DEC-1996;
 04-JAN-1996;
 Sequence
 121
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 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLIYVLPEVLEDSPLVPQKGS 180
 240
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP 300
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH 420
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH 480
 540
 540
 900
 900
 099
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI 720
 9
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED 780
 FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 GEIKWLRISSSVKKYYIHGKFTIL 804
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The
 ceptor/OB protein complex;
high cholesterol level;
 This sequence represents the obesity (OB) receptor protein. This sequence was used to identify the variants shown in AAW44497-W34501. Variants have one or more of the biological properties of naturally occurring OB receptor protein. The OB receptor proteins and OB receptor/OB protein complexes are used for the treatment of obesity, diabetes, high blood lipid levels and high cholesterol levels. The proteins may also be used to treat an individual for weight loss or weight maintenance required for purely cosmetic purposes.
 61 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 120
 180
 240
 Gaps
 1 MICOKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 9
 Obesity protein receptor(s) and related DNA - used to treat weight disorders, e.g. obesity, diabetes and high cholesterol or blood lipid levels
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS
 ö
 Length 839;
 Indels
 DB 18;
 2;
 Score 4337; DB Pred. No. 0; 0; Mismatches
 diabetes;
 Obesity receptor; human; OB receptor; OB high blood lipid level; obesity; diabetes weight loss; therapy; weight maintenance.
 82; 151pp; English.
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 Welcher
 protein;
 (first entry)
 Obesity receptor protein.
 AAW34502 standard;
 Homo sapiens
 W09.725424-A1
 18-MAR-1998
 AAW34502;
 AAW34502
RESULT
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```
540
 241 Iglhmeitddgnlkiswsspplvpfplgyqvkysensttvireadkivsatsllvdsilp 300
 9
 9
 780
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH 420
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH 480
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
 ligand; activator; antibody; agonist; proliferation; obesity; differentiation; anaemia; treatment; neoplasia; arteriosclerosis; Type II diabetes; polycystic ovarian disease; cardiovascular disease; osteoarthritis; dermatological disorder; hypertension; insulin resistance; hypercholesterolaemia; hypertriglyceridaemia; cancer; cholelithiasis.
 Human; WSX receptor; variant 6.4; identification; purification;
 Ź
 AAW24052 standard; Protein; 896
 Human WSX receptor variant 6.4.
 GEIKWLRISSSVKKYYIHGKF 801
 96US-0667197
96US-0585005
 97WO-US00325
 781 geikwlrisssvkkyyihdhf
 (first entry)
 07-JAN-1997;
 20-JUN-1996;
 17-MAR-1998
 17-JUL-1997
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Carter PJ,

Bennett B,

(GETH ) GENENTECH INC

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The present sequence is the human WSX receptor variant 6.4,
which can be used to identify and purify ligands and activators.
An anti-WSX receptor antibody can be weed as an agonist to activate the WSX receptor, leading to enhanced proliferation or differentiation of a cell expressing the WSX receptor. It can also be used to decrease body weight and/or fat-depot weight and/or food intake in an obese mammal. WSX receptor ligands can be used to enhance proliferation or differentiation of lymphoid, myeloid or erythroid blood cell lineages. This is useful when a mammal.

Sepecially a human, is suffering from decreased blood cell levels, i.e. anaemia, caused by chemotherapy, radiation therapy or bone marrow transplantation therapy. It can also be used to repopulate blood cells in a mammal. The products can also be used to repopulate blood cells in a mammal. The products can also be used to react, c. 9. neoplastic disorders, arteriosclerosis, Type II diabetes, cordoucts can also be used to creat, e. 9. neoplastic dermatological disorders, hypertension, insulin resistance, hypercholesterolaemia, hypertriglyceridaemia, cancer cordoucts.
 240
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 360
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 9
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 Gaps
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS
 1 MICOKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
 FOMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
 GSSYEVOVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 develop
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
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 Indels
 WSX receptor and related antibodies and ligands - used products for diagnosis and therapy, e.g. for improving haematopoiesis or for treating tumours
 18;
 ;
 DB
 0; Mismatches
 Score 4337;
Pred. No. 0;
 Claim 2; Pages 86-89; 219pp; English
 99.48;
 Matches 799; Conservative
 WPI; 1997-372864/34.
N-PSDB; AAT85576.
 Similarity
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 Sequence
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especially a human, is suffering from decreased blood cell levels, i.e. anaemia, caused by chemotherapy, radiation therapy or bone marrow transplantation therapy. It can also be used to repopulate blood cells in a mammal. The products can also be used to treat, e.g. neoplastic disorders, arteriosclerosis, Type II diabetes, polycystic ovarian disease, cardiovascular diseases, osteoarthritis, dermatological disorders, hypertension, insulin resistance, hypercholesterolaemia, hypertriglyceridaemia, cancer and cholelithiasis.

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Length 923;

DB 18;

99.4%; 99.8%;

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Sequence

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9
 99
 780
541 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
 Human; WSX receptor; variant 12.1; identification; purification; ligand; activator; antibody; agonist; proliferation; obesity; differentiation; namenia; treatment; neoplasia; arteriosclerosis; Type II diabetes; polycystic ovarian disease; cardiovascular disease; osteoarthritis; dermatological disorder; hypertension; insulin resistance; hypercholesterolaemia; hypertriglyceridaemia; cancer; cholelithiasis.
 AAW24053 standard; Protein; 923 AA.
 Human WSX receptor variant 12.1.
 801
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 96US-0667197
96US-0585005
 (first entry)
 Homo sapiens
 17-MAR-1998
 WO9725425-A1
 07-JAN-1997;
 20-JUN-1996;
08-JAN-1996;
 17-JUL-1997
 Human; WSX
 AAW24053;
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 1 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF
 FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
 QQIDANWIIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI
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 PISEPKOCYLOSDGFYECIFOPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
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 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
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 Indels
Score 4337; Pred. Not 0; 0; Mismatches
 Mismatches
 GEIKWLRISSSVKKYYIHGKF 801
 Conservative
Query Match
Best Local Similarity
Matches 799; Conserv
 61
 121
 121
 181
 181
 241
 241
 301
 421
 361
 361
 481
 301
 121
 541
 601
 481
 661
 721
 781
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The present sequence is the human WSX receptor variant 12.1, which can be used to identify and purify ligands and activators. An anti-WSX receptor antibody can be used as an agonist to activate the WSX receptor, leading to enhanced proliferation or differentiation of a cell expressing the WSX receptor. It can also be used to decrease body weight and/or fat-depot weight and/or food enhance in an obese mammal. WSX receptor ligands can be used to enhance proliferation or differentiation of lymphold, myeloid or erythroid blood cell lineages. This is useful when a mammal,

develop

receptor and related antibodies and ligands - used ducts for dlagnosis and therapy, e.g. for improving

for treating tumours

haematopolesis or

products

Claim 2; Pages 89-93; 219pp; English.

3

Matthews

Kim KJ,

NX,

Chiang

₽3,

Carter

Bennett B,

Rodrigues ML;

WPI; 1997-372864/34.

N-PSDB; AAT85577.

(GETH ) GENENTECH INC

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S

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fqmvhcncsvhecceclvpvptaklndtllmclkitsggvifqsplmsvqpinmvkpdpp 240
 GEIKWLRISSSVKKYYIHGKF
 Obesity receptor A protein.
 (first entry)
 Misc-difference
 Misc-difference
 Misc-difference
 Misc-difference
 Homo sapiens
 18-MAR-1998
181
 361
 601
 661
 781
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 241
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 AAW34497
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 FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQDINMVKPDPP 240
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 120
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS 180
 Gaps
 1 MICOKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 sequence has one or more of the biological properties of naturally occurring OB receptor protein. The OB receptor proteins and OB receptor/OB protein complexes are used for the treatment of obesity, diabetes, high blood lipid levels and high cholester& levels. The proteins may also be used to treat an individual for weight loss or weight maintenance required for purely cosmetic purposes.
 Obesity receptor; human; OB receptor; OB receptor/OB protein complibit blood lipid level; obesity; diabetes; high cholesterol level; weight loss; therapy; weight maintenance.
 Obesity protein receptor(s) and related DNA - used to treat weight disorders, e.g. obesity, diabetes and high cholesterol or blood lipid levels
 This sequence represents the obesity (OB) receptor C protein. This
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 Length 970;
 Indels
 DB 18;
 5;
 /label= unknown
/note= "encoded by stop codon"
 Score 4337; DE Pred. No. 0; 0; Mismatches
 Location/Qualifiers
 standard; protein; 970 AA.
 Welcher AA;
 Claim 2; Page 72; 151pp; English.
 99.48;
 97WO-US00128
 96US-0774414
 96US-0582825
 Obesity receptor C protein
 (first entry)
 Query Match 99.4

"Best Local Similarity 99.8

Matches 799; Conservative
 Fletcher FA,
 WPI; 1997-384981/35.
N-PSDB; AAT98530.
 970 AA;
 Key
Misc-difference
 (AMGE-) AMGEN
 W09725424-A1
 Homo sapiens
 02-JAN-1997;
 31-DEC-1996;
04-JAN-1996;
 18-MAR-1998
 17-JUL-1997
 AAW34499;
 Chang M,
 AAW34499
 Sequence
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 121
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 181
 AAW34499
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480
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH 420
 420
 480
 540
 540
 900
 900
 099
 99
 720
 720
 780
 complex;
 Obesity receptor; human; OB receptor; OB receptor/OB protein complihigh blood lipid level; obesity; diabetes; high cholesterol level; weight loss; therapy; weight maintenance.
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP
 RYAELYVIDVNINISCETDGYLTKMTCRWST$TIQSLAESTLQLRYHRSSLYCSDIPSIH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMMIRINHSLGSLDSPPTCVLPDSVVKPLPP
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
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948
 by stop codon"
 by stop codon"
 by stop codon
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/note= "encoded b
> 939
 ### /note= "encoded Misc-difference 919
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 /label- unknown
 /label= unknown
 /label= unknown
 801
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9 9 999 999

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us-09-116-676-10.rag

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GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED 780
 Obesity receptor; human; OB receptor; OB receptor/OB protein complex; high blood lipid level; obesity; diabetes; high cholesterol level; weight loss; therapy; weight maintenance.
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRI INGDTMKKEKNV
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 /note= "encoded by stop codon"
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 Location/Qualifiers
 Welcher AA;
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/note= "encoded
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 /note= "encoded
 /label- unknown
 /label= unknown
 /label- unknown
 96US-0774414
96US-0582825
 GEIKWLRISSSVKKYYIHGKF
 Obesity receptor B protein
 (first entry)
 Chang M, Fletcher FA,
 Misc-difference 933
 Misc-difference
 Misc-difference
 Misc-difference
 (AMGE-) AMGEN
 18-MAR-1998
 Homo sapiens
 W09725424-A1
 02-JAN-1997;
 31-DEC-1996;
 04-JAN-1996;
 17-JUL-1997
 AAW34498
 541
 481
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 FOMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGYIFQSPLMSVQPINMVKPDPP 240
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH 420
 Gaps
 This sequence represents the obesity (OB) receptor A protein. This sequence has one or more of the biological properties of naturally occurring OB receptor protein. The OB receptor proteins and OB receptor/OB protein complexes are used for the treatment of obesity, diabetes, high blood lipid levels and high cholesterol levels. The proteins may also be used to treat an individual for weight loss or weight maintenance required for purely cosmetic purposes.
 Obesity protein receptor(s) and related DNA - used to treat weight disorders, e.g. obesity, diabetes and high cholesterol or blood lipid levels
 Ö
 Length 972;
 Indels
 Score 4337; DB 18;
Pred. No. 0;
0; Mismatches 2;
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 /note- "encoded by
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 Welcher AA;
 /label- unknown
/note- "encoded b
 Claim 1; Page 64; 151pp; English.
 /label= unknown
/note= "encoded
/label= unknown
 99.48;
 97WO-US00128
 96US-0774414
96US-0582825
 Query Match
Best Local Similarity 99.8
Matches 799; Conservative
 Fletcher FA,
 WPI; 1997-384981/35.
N-PSDB; AAT98528.
 (AMGE-) AMGEN INC
 972 AA;
 Misc-difference
 Misc-difference
 W09725424-A1
 02-JAN-1997;
 31-DEC-1996;
04-JAN-1996;
 17-JUL-1997
 Chang M,
 Sequence
 181
 61
 121
 121
 181
 241
 241
 301
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 361
 361
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NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH 480
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED 780
 1 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 This sequence represents the obesity (OB) receptor b process. sequence has one or more of the biological properties of naturally occurring OB receptor protein. The OB receptor proteins and OB receptor/OB protein complexes are used for the treatment of obesity, diabetes, high blood lipid levels and high cholesterol levels. The proteins may also be used to treat an individual for weight loss or weight maintenance required for purely cosmetic purposes.
 Gaps
 Obesity protein receptor(s) and related DNA - used to treat weight disorders, e.g. obesity, diabetes and high cholesterol or blood lipid levels
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYD&VYCCNEHECHH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
 ;
 Length 999;
 Indels
 99.4%; Score 4337; DB 18; 99.8%; Pred. No. 0;
 5;
 0; Mismatches
 Claim 2; Page 68; 151pp; English
 Query Match
Best Local Similarity 99.8
Matches 799; Conservative
WPI; 1997-384981/35.
N-PSDB; AAT98529.
 Sequence
 181
 19
 61
 121
 181
 241
 361
 481
 301
 199
 301
 361
 421
 121
 481
 541
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 601
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The present sequence is the human WSX receptor variant 13.2, which can be used to identify and purify ligands and activators. An anti-WSX receptor antibody can be used as an agonist to activate the WSX receptor, leading to enhanced proliferation or differentiation of a cell expressing the WSX receptor. It can also be used to decrease body weight and/or fat-depot weight and/or food intake in an obese mammal. WSX receptor ligands can be used to enhance proliferation or differentiation of lymphoid, myeloid or erythroid blood cell lineages. This is useful when a mammal, especially a human, is suffering from decreased blood cell levels, i.e. anaemia, caused by chemotherapy, radiation therapy or bone
 ligand; activator; antibody; agonist; proliferation; obesity; differentiation; anaemia; treatment; neoplasia; arteriosclerosis; Type II diabetes; polycystic ovarian disease; cardiovascular disease; cardiovascular disease; osteoarthritis; dermatological disorder; hypertension; insulin resistance; hypercholesterolaemia; hypertriglyceridaemia; cancer; cholelithiasis.
 to develop
 marrow transplantation therapy. It can also be used to repopulate
 blood cells in a mammal. The products can also be used to freat, e.g. neoplastic disorders, arteriosclerosis, Type II diabetes, polycystic ovarian disease, cardiovascular diseases,
 osteoarthritis, dermatological disorders, hypertension, insulin resistance, hypercholesterolaemia, hypertriglyceridaemia, cancer
 WSX receptor and related antibodies and ligands - used products for diagnosis and therapy, e.g. for improving haematopolesis or for treating tumours
 Matthews
 identification;
 Kim KJ,
 Claim 2; Pages 81-85; 219pp; English
 AAW24051 standard; Protein; 1165 AA
 NY,
 receptor; variant 13.2;
 Human WSX receptor variant 13.2.
 Chiang
 96US-0667197,
96US-0585005,
 781 geikwlrisssvkkyyihdhf
 781 GEIKWLRISSSVKKYYIHGKF
 17-MAR-1998 (first entry)
 Carter PJ,
 (GETH.) GENENTECH INC
 WPI; 1997-372864/34.
 and cholelithiasis
 N-PSDB; AAT85575
 Rodrigues ML;
 Homo sapiens
 07-JAN-1997;
 20-JUN-1996;
08-JAN-1996;
 W09725425-A1
 17-JUL-1997
 Bennett B,
 AAW24051;
 Human;
 AAW24051
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1165

Sequence

540

540 900 099 099 cancer; AIDS: agriculture

98US-0178691. 97US-0961809.

ROCKEFELLER

Li C;

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Identifying modulators agents that modulate leptin activity
 WPI; 1999-327025/27.
N-PSDB; AAX55588.
 type II diabetes;
 Homo sapiens.
 (UYRQ) UNIV
 WO9923493-A1
 27-OCT-1998;
 Friedman JM,
 26-OCT-1998;
31-OCT-1997;
 14-MAY-1999
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0
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS 180
 240
 fqmvhcncsvhecceclvpvptaklndtllmclkitsggvifgsplmsvqpinmvkpdpp 240
 300
 360
 420
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH 480
 540
 540
 009
 Vpskeivwwmnlaekipqsqydvvsdhvskvtffnlnetkprgkftydavyccnehechh 420
 900
 099
 099
 Gaps
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED 780
 1 MICORFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 9
 181 FOMVHCNCSVHECCECLVPVPTAKLNDTLLAMCLKITSGGVIFQSPLMSVQPINMVKPDPP
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
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 Length 1165;
 Indels
 5;
 DB 18;
Score 4337; DE Pred. No. 0; 0; Mismatches
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 99.48;
Query Match 99.4
Best Local Similarity 99.8
Matches 799; Conservative
 AAY13474 standard;
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 181
 121
 121
 241
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The invention provides a method for identifying modulators of binding of a phosphorylated leptin receptor with tyrosine-985 phosphorylated leptin receptor with tyrosine-985 phosphorylated leptin receptor or its phosphorylated fragment with protein PTP-1D or its fragment in the presence and absence of a candidate agent under conditions in which in the absence of the agent the binding of the phosphorylated leptin receptor or fragment with PTP-1D or its fragment can be detected; and (b) detecting the binding of the phosphorylated leptin receptor and PTP 1D; where an increase in binding detected in the presence of the agent, indicates that the agent indicates binding, and a decrease in binding in the presence of the agent indicates that the agent indicates that the agent is a binding inhibitor. Modulators of tyrosine-985-phosphorylated leptin preceptor-dependent PTP-1D phosphorylation are usefil as drugs in weight the contract of the agent indicates that the agent agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent indicates that the agent agent indicates that the agent indicates that the agent indicates
 diseases
 loss diet regimens. The drugs identified can regulate adiposity and fat
 content of animals, particularly in mammals. Disorders that can be treated by PTP-1D modulators include obesity and its associated disease e.g. hypertension, heart disease and type II diabetes, and weight loss associated with cancer and AIDS. Additionally the agents identified mabe useful in agriculture where body weight of domestic animals can be
 120
 180
 180
 FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP 240
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 9
 9
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360
 1 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS
 121 qqidanwniqcwlkgdlklficyveslfknlfinnynykvhllyvlpevledsplvpqkgs
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 Length 1165;
 20;
 5,
 DB
 99.4%; Score 4337; C 99.8%; Pred. No. 0; Live 0; Mismatches
 36pp;
 Conservative
 Page 77-84;
 1165 AA;
 Query Match
Best Local Similarity
Matches 799; Conserv
Disclosure;
 Sequence
 61
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 181
 181
 301
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Leptin; phosphorylated leptin receptor; tyrosine phosphatase 1D; PTP-1D; modulator; drug; weight loss; adiposity; hypertension;, heart disease;

Seq ID No: 4 of W09923493

Peptide

(first entry)

26-JUL-1999 AAY13474;

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Protein; 1165

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 720
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 receptor/OB protein complex;
i high cholesterol level;
VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
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 codon
 codon,
 codon
 AAT98531"
 receptor; OB resity; diabetes;
 Obesity receptor; human; OB receptor; OB high blood lipid level; obesity; diabetes weight loss; therapy; weight maintenance.
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 stop
 Location/Qualifiers
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 W09725424-A1
 18-MAR-1998
 17-JUL'-1997
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 2
 541
 721
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540
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
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 300
 420
 480
 Gaps
 9
 This sequence represents the obesity (OB) receptor D protein. This sequence has one or more of the biological properties of naturally occurring OB receptor protein. The OB receptor proteins and OB receptor/OB protein complexes are used for the treatment of obesity diabetes, high blood lipid levels and high cholesterol levels. The proteins may also be used to treat an individual for weight loss or weight maintenance required for purely cosmetic purposes.
 Obesity protein receptor(s) and related DNA - used to treat weight disorders, e.g. obesity, diabetes and high cholesterol or blood lipid levels
 1 MICOKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 ;
 Length 1220;
 Indels
 18;
 5
 8
 Score 4337; DE
Pred. No. 0;
0; Mismatches
 Welcher AA;
 Claim 31; Page 76; 151pp; English
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 99.4%;
99.8%;
 96US-0774414.
97WO-US00128
 Query Match
Best Local Similarity 99.8
Matches 799; Conservative
 Chang M, Fletcher FA,
 WPI; 1997-384981/35
 1220 AA;
 N-PSDB; AAT98531
 (AMGE-) AMGEN
02-JAN-1997;
 31-DEC-1996;
 04 - JAN-1996;
 Sequence
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099
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI 720
 in reproductive
 Detection; defective obese protein receptor; defective OB-R; human; defective leptin receptor; variant Form 3; infertility.
PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVWDIKVPMRGPEFWRIINGDTMKKEKNV
 Detecting defective obese protein or leptin receptor cells - using variant receptor gene specific probes
 Zupancic TJ;
 Snodgrass RH,
 Ź
 Disclosure; Fig 3; 40pp; English.
 AAW50003 standard; Protein; 896
 781 GEIKWLRISSSVKKYYIHGKF 801
 97WO-US07676
 96US-0640389
 defective obese
 (first entry)
 Human OB-R variant Form 3
 (PROG-) PROGENITOR INC
 Shafer AW,
 WPI; 1997-549757/50.
N-PSDB; AAT95781.
 WO9741263-A1
 28-APR-1997;
 11-JUN-1998
 Homo sapiens
 29-APR-1996;
 06-NOV-1997
 cioffi J,
 AAW50003;
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for detecting a defective obese protein or leptin receptor (OB-R).

C in cells Them method comprises contacting RNA extracted from a cell population (preferably an ovary, prostate, testis, sperm, ova, ovarian follicular or blood cell population) with an oligonucleotide derived from a portion of the human OB-R variant oligonucleotide derived from a portion of the human OB-R variant.

C porm 1, 2 or 3 cDNA, and detecting hybridisation. Forms 2 and 3 are associated with infertility, as they are unable to correctly transduce signals from leptin binding. The detection method can be used to diagnose infertility, or predisposition to infertility, while treatments that inhibit or down regulate the variants, gene therapy to replace them in homozygotes or direct activation of also downstream signal transduction can be used to improve fertility. present sequence was used in the development of a novel method sequence to screen for other variants rhe

Ä 968 Query Match

Length 896; DB 18; Score 4325; 99.18;

180 180 240 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120 300 300 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH 480 540 540 780. Gaps 999 999 720 9 human; 1 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSQVIVSWILSPSDYKLMYFIIEWKNLNED ö Detection; defective obese protein receptor; defective OB-R; defective leptin receptor; variant Form 2; infertility. Indels 3; Pred. No. 0; 2; Mismatches Š 5 AAW50002 standard; Protein; 904 781 GEIKWLRISSSVKKYYIHGKF 801 99.48; Human OB-R variant Form 2. Similarity 99.4 96; Conservative Local Simi hes 796; 11-JUN-1998 Best Loca Matches 61 61 121 181 241 301 361 481 RESULT 12 121 181 361 421 301 421 481 541 601 601 661 721 AAW50002 ò g ò q ò a ò g à g ò g à g ŏ a ò a ŏ g qq q ò ò ô

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421

RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH

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for defecting a defective obese protein or leptin receptor (OB-R) in cells. Them method comprises contacting RNA extracted from a cell population (preferably an ovary, prostate, testis, sperm, ova, ovarian follicular or blood cell population) with an or oligonuclectide derived from a portion of the human OB-R variant of prom 1, 2 or 3 cDNA, and detecting hybridisation. Forms 2 and 3 are associated with infertility, as they are unable to correctly a ransduce signals from leptin binding. The detection method can be used to diagnose infertility, or predisposition to infertility, while treatments that inhibit or down regulate the variants, gene therapy to replace them in homozygotes or direct activation of downstream signal transduction can be used to improve fertility.

Also described is the use of labelled DNA probes based on the OB-R sequence to screen for other variants.
 present sequence was used in the development of a novel method
 Detecting defective obese protein or leptin receptor cells – using variant receptor gene specific probes
 Snodgrass RH,
 Disclosure; Fig 3; 40pp; English.
 97WO-US07676
 96US-0640389
 (PROG-) PROGENITOR INC
 Cioffi J, Shafer AW,
 WPI; 1997-549757/50.
 N-PSDB; AAT95780
 Homo sapiens
 28-APR-1997;
 W09741263-A1
 06-NOV-1997
 The
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in reproductive

Zupancic TJ;

Sequence

ö 360 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120 180 240 240 300 300 420 360 1 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60 0; Gaps FOMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP **QQIDANW**NIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI **VPSKEIVWWMNLAEK!PQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH** Length 904; Indels 99.1%; Score 4325; DB 18; 99.4%; Pred. No. 0; ; ; 2; Mismatches Local Similarity 99.4 les 796; Conservative Query Match Best Local S Matches 796, 241 361 61 61 121 121 181 181 241 301 301 361 ò a ò q ò g ò 셤 ð g

9 9 99 720 reproductive The present sequence was used in the development of a novel method for detecting a defective obese protein or leptin receptor (OB-R) in cells. Them method comprises contacting RNA extracted from a cell population (preferably an ovary, prostate, testis, sperm, ova, ovarian follicular or blood cell population) with an oligonucleotide derived from a portion of the human OB-R variant Form 1, 2 or 3 cDNA, and detecting hybridisation. Forms 2 and 3 are associated with infertility, as they are unable to correctly transduce signals from leptin binding. The detection method can be human SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED 661 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI protein receptor; defective OB-R; variant Form 1; infertility. Detecting defective obese protein or leptin receptor in cells - using variant receptor gene specific probes Snodgrass RH, Zupancic Ź Disclosure; Fig 3; 40pp; English. AAW38214 standard; Protein; 958 781 GEIKWLRISSSVKKYYIHGKF 801 97WO-US07676 781 geikwlrisssvkkyyihdhf Detection; defective obese defective leptin receptor; Human OB-R variant Form 1. (PROG-) PROGENITOR INC WPI; 1997-549757/50. N-PSDB; AAT95779 Homo sapiens 28-APR-1997; 11-JUN-1998 W09741263-A1 39-APR-1996; Cioffi J, AAW38214; 481 601 601 481 541 721 AAW38214 ŏ qq ρý q δ a ò g δ g õ

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therapy to replace them in homozygotes or direct activation of downstream signal transduction can be used to improve fertility.

Also described is the use of labelled DNA probes based on the OB-R sequence to screen for other variants.
 o diagnose infertility, or predisposition to infertility, treatments that inhibit or down regulate the variants, ge
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 240
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS 180
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 540
 540
 900
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 9
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 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI 720
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 Gaps
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 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
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 Length 958;
 Indels
 DB 18;
 3;
 Score 4325; DB Pred. No. 0; 2; Mismatches
 GEIKWLRISSSVKKYYIHGKF 801
 99.1%;
 Query Match
Best Local Similarity 99.44
Matches 796; Conservative
Sequence
 61
 121
 181
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 121
 241
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Detecting defective leptin receptor by hybridisation assay - a treatment of obesity with agent that inhibits the defective receptor, also screening for compounds that supplement leptin
 785..862
|/label= Transmembrane_domain
892..958
|/note= "divergence from published sequence"
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 Leptin receptor; OB-R; obese gene; obesity; gene therapy,
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 /note= "variation from published
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Misc-difference 223
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 Location/Qualifiers
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 Human OB-R leptin receptor variant.
 Claim 12; Fig 1A-E; 26pp; English.
AAW31911 standard; Protein; 958
 96US-0588190
 (first entry)
 (PROG-) PROGENITOR INC
 Cioffi J, Shafer AW,
 Misc-difference 109
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 Homo sapiens
 17-JAN-1997;
 18-JAN-1996;
 W09726370-A1
 24-JUL-1997
 Domain
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OB-R variant gene, especially from the region beyond incleotide 2770. Also claimed are methods of: (1) treating obesity by administration of an agent that inhibits expression of the OB-R variant gene; and (2) identification of a compound that can supplement activity of leptin by: (i) incubating cells expressing OB-R variant first with leptin and then with a test compound, and (ii) comparing activation signals between cells treated and not treated with the test compound. Inhibition/down-regulation of the variant OB-R (found in obese people) improves response of cells to weight regulation by leptin. Replacing variant OB-R by gene therapy (in homozygous individuals) can be used to treat obesity. Labelled probes based on the gene can be used to isolate other variant forms library. The sequence shows near identity to a published OB-R sequence in the extracellular domain, with the exception of 3 amino acids, but there is extensive diversity in the intracellular cytoplasmic domain at the C-terminal end. A claimed method for detection of OB-R in cells comprises extraction of RNA and testing this for hybridisation to an oligonucleotide (I) derived from the This polypeptide comprises a variant of the human leptin receptor (OB-R). Its sequence was deduced from a contiguous cDNA (AAT89193) derived from overlapping clones isolated from a human foetal liver of the receptor gene or to detect the variant gene (e.g. for determining predisposition to obesity), while the OB-R gene can used to express recombinant OB-R (optionally as fusion protein) in standard hybridisation assays. The OB-R gene can also be therapeutically in cases of overexpression of functional OB-R

RESULT 14 AAW31911

781

OB-R; obese gene; obesity; gene therapy;

Human OB-R leptin receptor variant.

Leptin receptor;

(first entry)

02-FEB-1998

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(causing loss of appetite and hypermetabolic activity). Cells engineered to express variant receptor are used in method (2) to screen for (ant)agonists of leptin/OB-R interaction, also to generate antibodies that competitively inhibit, neutralise or enhance activity
 antibodies that competi
of the variant receptor
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Ë Sequence

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 240
 900
 099
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
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 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH 420
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH 480
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 99
 780
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI 720
 Gaps
 1 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
 POMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
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 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
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 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
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 Length 958;
 Indels
 18;
 DB
Score 4325; DB Pred. No. 0; 2; Mismatches
 781 GEIKWLRISSSVKKYYIHGKF 801
99.1%;
 Matches 796; Conservative
 Similarity
Query Match
Best Local S
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RESULT 15 AAM19535 ID · AAW19535 standard; Protein; 958

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COB-R). Its sequence was deduced from a contiguous cDNA (AAT7264) derived from overlapping clones isolated from a human foetal liver library. The sequence shows near identity to a published OB-R sequence in the extracellular domain, with the exception of 3 amino acids, but there is extensive diversity in the intracellular cytoplasmic domain at the C-terminal end, suggesting alternative splicing of a common precursor mRNA. A claimed method for detection of OB-R in cells comprises extraction of RNA and testing this for hybridisation to an oligonucleotide (I) derived from the OB-R variant gene, especially from the region beyond nucleotide (2770. Also claimed are methods of: (1) treating obesity by administration of an agent that inhibits expression of the OB-R variant gene, and (2) identification of a compound that can captuit gene, and (2) identification of a compound and cupity of leptin by: (1) incubating cells expressing ober a variant first with leptin and then with a test compound and
 (ii) comparing activation signals between cells treated and not treated with the test compound. Inhibition/down-regulation of the variant OB-R (found in obese people) improves response of cells to weight regulation by leptin. Replacing variant OB-R by gene therapy (in homozygous individuals) can be used to treat obesity. Labelled probes based on the gene can be used to isolate other variant forms
 of the receptor gene or to detect the variant gene (e.g. for determining predisposition to obesity), while the OB-R gene can be used to express recombinant OB-R (optionally as fusion protein) and in standard hybridisation assays. The OB-R gene can also be used
 Detecting defective form of leptin receptor by probing cellular RN with oligonucleotide derived from DNA of receptor variant, also treatment of obesity by inhibiting expression of variant receptor and screening for agents that increase leptin activity
 This polypeptide comprises a variant of the human leptin receptor
 therapeutically in cases of overexpression of functional OB-R
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 96US-0588189
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 Misc-difference 223
 diagnosis; human.
 P-PSDB; AAT72649
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 Homo sapiens
 17-JAN-1997;
 .8-JAN-1996;
 WO9726272-A1
 24 - JUL - 1997
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(causing loss of appetite and hypermetabolic activity). Cells engineered to express variant receptor are used in method (2) to screen for (ant)agonists of leptin/OB-R interaction, also to generate antibodies that competitively inhibit, neutralise or enhance activity of the variant receptor.
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 121 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLFEVLEDSPLVPQKGS 180
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP 300
 420
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 Gaps
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH 480
 480
 540
 900
 900
 1 MICOKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 99
 PISEPKOCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVTBAKSKSVSLPV
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
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 Length 958
 Indels
 3;
 DB 18;
 Score 4325; DE
Pred. No. 0;
2; Mismatches
 Query Match 99.1%;
Best Local Similarity 99.4%;
Matches 796; Conservative ;
 GEIKWLRISSSVKKYYIHGKF 801
 Sequence
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Maximum Match 100%
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2: pir2:\*
3: pir3:\*
4: pir4:\* PIR\_68:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

|               |       | æ              |                          |    | SUMMARIES |                    |
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| m             | 3345  | 76.7           | 894                      | ~  | S68437    |                    |
| 4             | 3345  | 76.7           | 006                      | 7  | S68440    |                    |
| 2             | 3345  | 76.7           | 1162                     | ~  | 568438    |                    |
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| 6             | 277.5 | 6.4            | 918                      | 7  | A36337    | membrane glycoprot |
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| 12            | 242.5 | 5.6            | 771                      | 7  | B38252    |                    |
| . 13          | 242.5 | 5.6            | 783                      | 7  | JH0329    |                    |
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| 16            | 220   | 5.0            | 2302                     | ~  | T14328    | protein-tyrosine-p |
| 17            | 208   | 4.8            | 1092                     | ~  | JX0312    | differentiation-st |
| . 18          | 178   | 4.1            | 831                      | 7  | JQ1655    | prolactin receptor |
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| 21            | 163   | 3.7            | 6805                     | 7  | S20901    | titin - rabbit (fr |
| 22            | 161.5 | 3.7            | 26926                    | Н  | 138344    | titin, cardiac mus |
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| 24            | 157   | 3.6            | 1375                     | ~  | T13822    | frazzled gene prot |
| 25            | 153.5 | 3.5            | 440                      | 7  | JL0144    |                    |
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| 27            | 150.5 | 3.4            | 310                      | ~  | A29884    |                    |
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| 29            | 150.5 | 3.4            | 610                      | 7  | A36116    | prolactin receptor |
|               |       |                |                          |    |           |                    |

| 30 149.5 3.4 1197 2 T30581<br>31 149 3.4 3488 2 T4418<br>32 148 3.4 1000 2 146521<br>33 147.5 3.4 610 2 A4631<br>35 147.5 3.4 610 2 A4631<br>36 147.5 3.4 1232 2 T43027<br>37 144 3.3 1825 2 T43027<br>38 143 3.3 1447 2 A54100<br>40 141 3.2 878 2 A3391<br>41 140.5 3.2 638 2 B4526<br>44 139 3.2 638 2 B4526<br>45 139 3.2 635 2 A45266 | neural cell adhesi | hypothetical prote | titin - rabbit (fr | frazzled gene prot | lactogen receptor | neural cell adhesi | kinase-related pro | hypothetical prote | somatotropin recep | tumor suppressor p | prolactin receptor | interleukin-3 rece | somatotropin recep | somatotropin recep | MPL-K protein prec | MPL-P protein prec |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 3.4 1197 2<br>3.4 1600 2<br>3.4 1526 2<br>3.4 1526 2<br>3.4 1532 2<br>3.3 1828 2<br>3.3 1828 2<br>3.3 1847 2<br>3.2 878 2<br>3.2 638 2<br>3.2 638 2                                                                                                                                                                                        |                    |                    |                    |                    |                   |                    |                    |                    |                    |                    |                    |                    |                    | ~                  | -                  |                    |
|                                                                                                                                                                                                                                                                                                                                            | T30581             | T34418             | 146521             | T13823             | A34631            | T43027             | 173957             | T32828             | A33991             | A54100             | 145971             | A40091             | B28176             | S12136             | B45266             | A45266             |
|                                                                                                                                                                                                                                                                                                                                            | 7                  | 7                  | 7                  | 7                  | ~                 | 7                  | ņ                  | ~                  | Ģ                  | ~                  | ~                  | -                  | ~                  | ~                  | ~                  | 7                  |
|                                                                                                                                                                                                                                                                                                                                            | 1197               | 3488               | 1000               | 1526               | 610               | 1232               | 2338               | 1825               | 638                | 1447               | 581                | 878                | 638                | 638                | 579                | 635                |
| 30 149.5<br>31 149.5<br>32 148.3<br>34 147.5<br>35 147.5<br>36 144.3<br>40 141.4<br>41 140.5<br>42 140.5<br>44 139                                                                                                                                                                                                                         | 3.4                | 3.4                | 3.4                | 3.4                | 3.4               | 3.4                | 3,3                | 3.3                | 3.3                | 3,3                | 3.2                | 3.2                | 3.2                | 3.2                | 3.2                | 3.2                |
| 0.11.02.03.03.03.03.03.03.03.03.03.03.03.03.03.                                                                                                                                                                                                                                                                                            | 149.5              | 149                | 148                | 148                | 147.5             | 147.5              | 146                | 144                | 143                | 142                | 141                | 141                | 140.5              | 140.5              | 139                | 139                |
|                                                                                                                                                                                                                                                                                                                                            | 30                 | 31                 | 32                 | 33                 | 34                | 35                 | 36                 | 37                 | 38                 | 39                 | 40                 | 41                 | 42                 | 43                 | 44                 | 45                 |

## ALIGNMENTS

| RESULT 1 S68441 Leptin receptor, splice form Ob-Re - mouse C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Date: 31-Dec-2000 #sequence_revision 31-Dec-2000 #text_change 31-Dec-2000 C;Accession: S68441 R;Lee, G.H.; Proenca, R.; Montez, J.M.; Carroll, K.M.; Darvishzadeh, J.G.; Lee, J.I.; R;Lee, G.H.; Proenca, R.; Montez, J.M.; Carroll, K.M.; Darvishzadeh, J.G.; Lee, J.I.; R;Lee, G.H.; Proenca plicing of the leptin receptor in diabetic mice. A;Reference number: S68437; MUID:96231997 A;Accession: S68441 A;Status: nucleic acid sequence not shown; translation not shown A;Molecule type: mRNA A;Residues: 1'805 <lee></lee> | A;Cross-references: EMBL:U49110; NID:g1195492; PIDN:AAC52424.1; PID:g1195493<br>A:Experimental Source: Splice form Re; tissue hypothalamus<br>A:Note: the nucleofide sequence are submitted to the EMBL Data Tibears | A;NOCE: LIE INCIECTION SEQUENCE WAS SUGMITTED TO THE EMBL DATA LIDIATY, FEDTUALY 1995 C;COmment: For alternative splice forms, see PIR:S68437, PIR:S68438, PIR:S68439, PIR: C;Genetics: A;Gene: Ob-Re |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

C; Keywords: alternative splicing; appetite

Gaps 2; Length 805; Query Match 76.9%; Score 3355; DB 2; Length 8 Best Local Similarity 76.0%; Pred. No. 5.3e-227; Matches 611; Conservative 74; Mismatches 117; Indels

'n

1 MICOKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60 ŏ q

61 KGASEAIVEAKFNSSGIYVPELSKTVFHCCFGNEQGQNCSALTDNTEGKTLASVVKASVF 120 61 NGHYETAVEPKFNSSCTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120 ద δ

121 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS 180 ö a

181 FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP 240 ò q

241 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP 300 

ò q 301 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360 Ω g

361 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH 420

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C; Species: Wus musculus (house mouse)
C; Date: 31-Dec-2000 #sequence_revision 31-Dec-2000 #text_change 31-Dec-2000
C; Date: 31-Dec-2000 #sequence_revision 31-Dec-2000 #text_change 31-Dec-2000
C; Accession: S68437
R; Lee, G.H.; Proenca, R.; Montez, J.M.; Carroll, K.M.; Darvishzadeh, J.G.; Lee, J.I.;
Nature 379, 632-635, 1996
A; Title: Abnormal splicing of the leptin receptor in diabetic mice.
A; Reference number: S68437; MUID:96231997
A; Status: nucleic acid sequence not shown; translation not shown
A; Scatus: nucleic acid sequence not shown; translation not shown
A; Status: nucleic acid sequence ont shown; translation not shown
A; Residues: 1-894 <LE>
A; Cross-references: EMBL:U49106; NID:91185484; PIDN:AAC52420.1; PID:91195485
A; Experimental source: splice form Ra; tissue hypothalamus
A; Residues: the nucleotide sequence was submitted to the EMBL Data Library, February 1996
C; Comment: For alternative splice forms, see PIR:S68437, PIR:S68439, PIR:
 Darvishzadeh, J.G.; Lee, J.I.;
 KGASEAIVEAKFNSSGIYVPELSKTVFHCCFGNEQGQNCSALTDNTEGKTLASVVKASVF 120
 180
 420
 300
 358
 359 ISSKQIVWWRNLAEKIPEIQYSIVSDRVSKVTFSNLKATRPRGKFTYDAVYCCNEQACHH 418
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH 480
 900
 658
 FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI
 VPSKEIVWWMNLABKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTWKKEKNV
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
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 C;Genetics:
A;Gene: Ob-Ra
C;Keywords: alternative splicing; appetite
 DGMKWLRIPSNVKKFYIHDNF 799
 781 GEIKWLRISSSVKKYYIHGKF 801
 leptin receptor, splice form Ob-Ra
 240
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 CiSpecies: Miss musculus (house mouse)
CiDate: 31-Dec-2000 #sequence_revision 31-Dec-2000 #text_change 31-Dec-2000
CiDate: 31-Dec-2000 #sequence_revision 31-Dec-2000 #text_change 31-Dec-2000
CiDate: 31-Dec-2000 #sequence_revision 31-Dec-2000 #text_change 31-Dec-2000
Riles G.H.: Proenca R.: Montez, J.M.; Carroll, K.M.: Darvishzadeh, J.G.: Lee, J.I.; Fr.
Nature 379, 632-635, 1996
AiTitle: Abnormal splicing of the leptin receptor in diabetic mice.
A:Reference number: S68437; MUID:96231997
 A; Residues: 1-796, 'GMCTVLEND' <LEEZ>
A; Cross-references: EMBL:U49110; NID:q1195492; PIDN:AAC52424.1; PID:q1195493
A; Cross-references: EMBL:U49110; NID:q1195492; PIDN:AAC52424.1; PID:q1195493
A; Experimental source: splice form Re; tissue hypothalamus
A; Note: the nucleotide sequence was submitted to the EMBL Data Library, February 1996
A; Note: this sequence from splice form Re is included to produce a complete sequence
C; Comment: For alternative splice forms, see PIR:S68437, PIR:S68438, PIR:S68439, PIR:S68
 Experimental source: splice form Rc; tissue hypothalamus
Note: the nucleotide sequence was submitted to the EMBL Data Library, February 1996
Accession: $68441
 ä
 A; Modecule type: mRNA
A; Residues: 664-892 <LEE1>
A; Cross-references: EMBL: U49108; NID: 91195488; PIDN: AAC52422.1; PID: 91195489
540
 538
 900
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 099
 658
 720
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED 780
 61 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 Gaps
 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 RYAELYVIDVNINISCETDGYLTKWTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTWKKEKNV
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
 ;
 A; Status: nucleic acid sequence not shown; translation not shown
 Status: nucleic acid sequence not shown; translation not shown
 Length 892;
 73; Mismatches 117; Indels
 DB 2;
 76.7%; Score 3345; DB 376.0%; Pred. No. 3e-226
 - mouse
 'Gene: Ob-Rc
'Keywords: alternative splicing; appetite
 781 GEIKWLRISSSVKKYYIHGKFTIL 804
 :||||| |:||||| |:|||| |:||
779 DGMKWLRIPSNVKKFYIHGMCTVL 802
 leptin receptor, splice form Ob-Rc
 Conservative
 Ouery Match
Best Local Similarity
Matches 609; Conserv
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Molecule type: mRNA

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1996 PIR:

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not
 Query Match 76.7%;
Best Local Similarity 76.0%;
Matches 609; Conservative 7
sedneuce
 SHILL ISHISHILL ISH I DGMKWLRIPSNVKKFYIHDNF
 GEIKWLRISSSVKKYYIHGKF
 A; Molecule type: mRNA
A; Residues: 1-900 <LEE>
 A;Gene: Ob-Rd
C;Keywords: altern
F;840-860/Domain:
 C; Genetics:
 601
 61
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 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS 180
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 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360
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 418
 480
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 598
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 658
 720
 718
 Gaps
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 9
 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF
 FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
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 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
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 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQÄHTVTVLAINSI
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 5
 894;
 Indels
 Length
 Score 3345; DB 2;
Pred. No. 3.1e-226;
); Mismatches 117;
 73;
 76.7%;
76.0%;
 DGMKWLRIPSNVKKFYIHDNF
 GEIKWLRISSSVKKYYIHGKF
 Similarity 76.0
19; Conservative
 Matches 609;
 Query Match
 Best Local
 299 (
 61
 61
 181
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A; Cross-references: EMBL:U49109; NID:g1195490; PIDN:AAC52423.1; PID:g1195491
A; Experimental source: tissue hypothalamus
A; Note: the nucleotide sequence was submitted to the EMBL Data Library, February
C; Comment: For alternative splice forms, see PIR:S68437, PIR:S68438, PIR:S68439,
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 120
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 240
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 298
 360
 358
 420
 418
 478
 540
 538
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 999
 780
 778
 Gaps
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 9
 1 MICQKECVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF
 61 KGASEAIVEAKFNSSGIYVPELSKTVFHCCFGNEQGQNCSALTDNTEGKTLASVVKASVF
 359 ISSKQIVWARNLAEKIPEIQYSIVSDRVSKVTFSNLKATRPRGKFTYDAVYCCNEQACHH
 FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMD1KVPMRGPEFWR11NGDTMKKEKNV
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
 ;
 alternative splicing; appetite; transmembrane protein omain: transmembrane #status predicted <TMM>
 Length 900;
 not shown
 Indels
translation
 ; Score 3345; DB 2;
; Pred. NO. 3.1e-226;
73; Mismatches 117;
shown;
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Andrews and animal district

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C; Species: Rattus norvegicus (Norway rat)
C; Date: 15-Aug-1996 Requence_revision 13-Mar-1997 #text_change 01-Dec-2000
C; Date: 15-Aug-1996 Requence_revision 13-Mar-1997 #text_change 01-Dec-2000
C; Accession: JG4895; JG4895; JG4897; PC4184; JG4797
R; Takaya, K; Ogawa, Y; Isse, N; Okazaki, T; Satch, N; Masuzaki, H; Mori, K; Tar Biochem Blophys Res Commun. 225, 75-83, 1996
A; Title: Molecular cloning of rat leptin receptor isoform complementary DNAs-identifi
A; Reference number: JG4895; MUID:96332408
 Residues: 1-1162 <TAK>
:Cross-references: DDBJ:D85558; NID:91526441; PIDN:BAA12831.1; PID:d1013515; PID:915
 Comment: This receptor is obese-phenotype-linked mutant, found in the Zucker (fa/fa
 Filda, M.; Murakami, T.; Ishida, K.; Mizuno, A.; Kuwajima, M.; Shima, K.; iochem. Biophys. Res. Commun. 224, 597-604, 1996
Filtle: Substitution at codon 269 (glutamine-proline) of the leptin receptor (OB-R); Reference number: PC4184; MUID:96295531
 R; Iida, M.; Murakami, T.; Ishida, K.; Mizuno, A.; Kuwajima, M.; Shima, K. Biochem. Biophys. Res. Commun. 222, 19-26, 1996
A;Title: Phenotype-linked amino acid alteration in leptin receptor cDNA from zucker A;Reference number: JC4797; MUID:96212906
 A;Residues: 1-889, RADTL' <112>
A;Cross-references: DDBJ:D84125; NID:91374707; PIDN:BAA12230.1; PID:91374708
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 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVWDIKVPMRGPEFWRIINGDTMKKEKNV
 SSVKAEITINIGLLKISWEKPVFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPV
 Length 1162;
 840-860/Domain: transmembrane *status predicted <TMM>
861-1162/Domain: intracellular *status predicted <INT>
 Score 3342; DB 2;
Pred. No. 7.1e-226;
 Residues: 1-796,'G',1157-1158,'TVLLLN' <TA3>
Cross-references: DDBJ:D85559
 Keywords: appetite; transmembrane protein
 SIIIII I:IIII I
DGMKWLRIPSNVKKFYIHDNF 799
 A; Experimental source: adipose cell
 76.6%;
76.0%;
 781 GEIKWLRISSSVKKYYIHGKF
 Status: preliminary
Molecule type: mRNA
Residues: 1-889, 'RADTL' <TA2>
Cross-references: DDBJ:D85557
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A;Residues: 840-1162 <IID>
A;Cross-references: DDBJ:D84550
 leptin receptor, Ob-Rb - rat
 Query Match
Best Local Similarity
 Status: preliminary
 Molecule type: mRNA
 Molecule type: mRNA
 Status: preliminary
 A; Molecule type: mRNA
 Accession: JC4895
 Accession: JC4896
 A; Accession: JC4897
 Accession: PC4184
 A; Accession: JC4797
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 A; Gene:
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 Experimental source: Spillo: NID:g1195492; PIDN:AAC52424.1; PID:g1195493

Experimental source: Spilce form Re; tissue hypothalamus

Note: the nucleotide sequence was submitted to the EMBL Data Library, February 1996

Note: this sequence from spilce form Re is included to produce a complete sequence

Comment: For alternative spilce forms, see PIR:S68437, PIR:S68438, PIR:S68439, PIR:S68
 CiAccession: S68438; S68441
RiLee, G.H.; Proenca, R.; Montez, J.M.; Carroll, K.M.; Darvishzadeh, J.G.; Lee, J.I.; RiLee, 379, 632-635, 1996
A;Title: Abnormal splicing of the leptin receptor in diabetic mice.
A;Reference number: S68437; MUID:96231997
 Molecule type: mRNA.
Residues: 664-1162 <LEE1>
Residues: 664-1162 <LEE1>
Cross-references: BMBL:049107; NID:g1195486; PIDN:AAG52421.1; PID:g1195487

Experimental source: Splice form Rb; tissue hypothalamus
Note: the nucleotide sequence was submitted to the EMBL Data Library, February 1996
Note: only a part of the translation is shown
Accession: $68441
 5
 C;Date: 17-Jul-1998 #sequence_revision 31-Dec-2000 #text_change 31-Dec-2000
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 QOIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS 180
 181 FQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP 240
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP 300
 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360
 358
 420
 418
 480
 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 Gaps
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 5;
 Length 1162;
 Status: nucleic acid sequence not shown; translation not shown
 Ouery Match 76.7%; Score 3345; DB 2; Length 1 Best Local Similarity 76.0%; Pred. No. 4.4e-226; Matches 609; Conservative 73; Mismatches 117; Indels
 - mouse
 Keywords: alternative splicing; appetite
 A.Status: nucleic acid sequence not shown
 aptor, splice form Ob-Rb - n
Mus musculus (house mouse)
 -796, 'GMCTVLFMD' <LEE2>
 Molecule type: mRNA
 receptor,
 Residues: 1
 Ob-Rb
 :Species:
 241
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glycoprotein 130 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 28-Jul-2000
 A,Gene: rob-R
C;Keywords: appetite; transmembrane protein
F;840-860/Domain: transmembrane #status predicted
 Experimental source: strain
 Genetics:
 61
 240
 361
 121
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 A; Cross-references: EMBL: U53144; NID: 91395212; PIDN: AAB03088.1; PID: 91395213
 358
 05-Nov-1999
 NGHYETAVEPKFNSSCTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF 120
 OQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS 180
 240
 239
 300
 420
 418
 480
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 GSSYEVQVRGKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI 360
 598
 099
 720
 658
 780
 MICQKFCVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS 60
 PQMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
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 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
 721 GASVANFNLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
 C;Species: Rattus norvegicus (Norway rat)
C;Date: 29-Jan-1998 #sequence_revision 13-Feb-1998 #text_change
C;Accession: S74225
 Indels
 116;
 R;Wang, M.Y.; Zhou, Y.T.; Newgard, C.B.; Unger, R.H.
EEBS Lett., 392, 87-90, 1996
A;Title: A novel leptin receptor isoform in rat.
A;Reference number: S74225; MUD:96568027
 Mismatches
 leptin receptor, isoform Ob-Rf - rat
 799
 781 GEIKWLRISSSVKKYYIHGKF
 Conservative
 A; Accession: S74225
A; Molecule type: mRNA
A; Residues: 1-895 <WAN>
609;
Matches
 240
 241
 301
 361
 479
 541
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 601
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 481
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 179
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 MICOKECVVLLHWEFIYVITAFNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSNS
 QQIDANWNIQCWLKGDLKLFICYVESLFKNLFRNYNYKVHLLYVLPEVLEDSPLVPQKGS
 NGHYETAVEPKFNSSGTHFSNLSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSLVF
 FOMVHCNCSVHECCECLVPVPTAKLNDTLLMCLKITSGGVIFQSPLMSVQPINMVKPDPP
 LGLHMEITDDGNLKISWSSPPLVPFPLQYQVKYSENSTTVIREADKIVSATSLLVDSILP
 GSSYEVQVRCKRLDGPGIWSDWSTPRVFTTQDVIYFPPKILTSVGSNVSFHCIYKKENKI
 VPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHH
 RYAELYVIDVNINISCETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIH
 PISEPKDCYLQSDGFYECIFQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPP
 599 SDLCAVYVQVRCQRLDGLGYWSNWSSPAYTLVMDVKVPWRGPEFWRIMDGDITKKERNV
 721 GASVANENLTESWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNED
 TLLWKPLMKNDSLCSVQRYVINHHTSCNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSI
 PDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIINGDTMKKEKNV
 ;
 Indels
 Length
75.3%; Score 3284; DB 2; 75.0%; Pred. No. 5.7e-222; tive 77; Mismatches 121;
 799
Query Match 75.3%
Best Local Similarity 75.0%
Matches 601; Conservative
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OMIM: 600694

<HIB>

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A;Cross-references: GB:M57230; NID:9186353; PIDN:AAA59155.1; PID:9186354 C;Genetics:
 A;Gene: GDB:IL6ST; GP130
A;Cross-references: GDB:126725;
 A; Status: preliminary
 A;Molecule type: mRNA
A;Residues: 1-918 <HI
 A; Accession:
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Saito, M.; Yoshida, K.; Hibi, M.; Taga, T.; Kishimoto, T.
Immunol. 148, 4066-4071, 1992
Title: Molecular cloning of a murine IL-6 receptor-associated signal transducer, gpl36
Reference number: 148370; MUID:92291532
Accession: 149699
 26;
 R;Hibi, M.; Murakami, M.; Saito, M.; Hirano, T.; Taga, T.; Kishimoto, T. Cell 63, 1149-1157, 1990
A;Title: Molecular cloning and expression of an IL-6 signal transducer, gpl30.
A;Reference number: A36337; MUID:91084844
 C;Species: Homo sapiens (man)
C;Date: 12-Apr-1991 #sequence_revision 12-Apr-1991 #text_change 28-Jul-2000
C;Accession: A36337
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 STPRVFTTQDVIYF----ENKIVP 362
 531
 ----WKMYEVYDAKSKSVSLPVPDL--CAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMD 635
 694 DVGNHTKFTFLWTEQAHTVTVLAINSIGASVANFNLTFSWP-MSKVNIVQSLSAYPLNSS 752
 Gaps
 262 KDASTWIQVPLEDIMSPRISFIVQDLKPFTEYVFRIRSIKDSGKGYWSDWSERASGTTYE 321
 636 IKVPMRGPEFWRIINGDIMKKEKNVTLLWKPLMKNDSLCSVQRY--VINHHISCNGTWSE 693
 381 ---TGTELTVNLTNDRYVASLAARNKVGKSAAAV-LTIPSPHVTAAYSVVNLKAFP-KDN 435
 SAPRIWLAQALLFFLTTESIGQLLEPCGYIYPEFPVVQRGSNFTAICVLKEACLQHYYVN 61
 Cross-references: GB:M83336; NID:9193591; PIDN:AAA37723.1; PID:9193592
 363 SKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLNETKPRGKFTYDAVYCCNEHECHHRY
 62 ASYIVWKTHHA AVPREQVIVINRTISSVIFIDY -- VLPSVQLF-----CNILSFGQIE
 123 AELYVI-----DVNINISC-ETDGYLTKMTCRWSTSTIQSLAESTLQLRYHRSSLYC
 474 SDIPSIHPISEPKDCYLQSDGFYECI--FQPIFLLSGYTMWIRINHSLGSLDSPPTCVLP
 532 DSVVKPLPPSSVKAEITINI-GLLKISWEKPVFPENNLQFQIRYGLSG----KEVQ---
 115 VDKVKPTPPYNLSVTNSEELSSILKLSW------VSSGLGGLLDLKSDIQYRT
 95; Mismatches 214; Indels 100;
 Length 917;
 753 CVIVSWILSPSDYKLMYFIIEWKNLNEDGEI--KWLRISSSVKKYYIHGK 800
 LLWVEW--TPPPKPVSKYILEWCVLSENAPCVEDWQQEDATVNRTHLRGR 483
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*134-314/Domain: cytokine receptor homology <CRS>
 membrane glycoprotein gp130 precursor - human
 Superfamily: cytokine receptor homology
 Status: translated from GB/EMBL/DDBJ
 Status: translated from GB/EMBL/DDBJ
 Ouery Match 6.89
Best Local Similarity 22.89
Matches 121; Conservative
 Molecule type: mRNA
Residues: 1-917 <RES>
 Molecule type: mRNA
Residues: 1-917 <RE2>
 Accession: I48370
 gp130
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interleukin-6 signal transducing molecule gp130 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Species: Battus norvegicus (Norway rat)
C;Date: 30-Apr-1993 #Sequence_revision 18-Nov-1994 #text_change 28-Jul-2000
C;Accession: A44257
R;Wang, Y.; Nesbitt, J.E.; Fuentes, N.L.; Fuller, G.M.
Genomics 14, 666-672, 1992
A;Title: Wolecular cloning and characterization of the rat liver IL-6 signal transduc
A;Reference number: A44257; MUID:93052397
 22;
 337 PPKILTSVGSNVSFHCIYKK---ENKIVPSKEIVWWNNLAEKIPQSQYDVVSDHVSKVTF 393
 394 FNLNETKPRGKFTYDAVYCCNEHECHHRYAELYVIDV-----NINISC-ETDGYLTK 444
 92 TDI-----ASLNIQLTCNILTFGQLEQNVYGITIISGLPPEKPKNLSCIVNEG--KK 141
 142 MRCEWDGG-----RETHLEINFILKSEWAT-----HKFA---DCKAKRDTPTSCTVDYST 188
 189 VYEVN-IEVWVEAENALGKVTSDHINEDPVKVKPNPPHNLS---VINSEELSSILKLTW 244
 559 EKP----VFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSLPVPDL--CAVYAVQV 611
 SLCSVQRYVINHHTSCNGTWSEDVGNH----TKFTFLWTEQAHTVTVLAINSIGASVANF 727
 359 ANGKILDYEVT----LIRWKSHLQNYTVNATKLTVNLTNDRYLATLTVRNLVGKSDAAV 413
 NLTFSWPMSKVNIVQSLSAYPLNSSCVIVSWILSPSDYKLMYFIIEWKNLNEDGE--IKW 785
 PESPVVQLHSNFTAVCVLKEKCMDYFHVNANYIVWKTN-HFTIPKEQYTIINRTASSVTF 91
 445 MTCRWSTSTIQSLAESTLQLRYHRSSLYCSDIPSIHPISEPKDCYLQSDGFYECI--FQP
 503 IFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPPSSVKAEITIN----IGLLKISW
 245 TNPSIKSVIILKYNIQYRTKDAST----WSQIPPEDTASTRSSFTVQDLKPFTEYVFRI
 RCKRLDGLGYWSNWSNPAYTVVWDIKVPMRGPEFWRIINGDTMKKEKNVTLLWKPLMKND
 10 RCMKEDGKGYWSDWSEEASGITYEDR-PSKAPSFWYKIDPSHTQGYRTVQLVWKTLPPFE
 73;
 Length 918;
 A:Status: preliminary; not compared with conceptual translation
 A;Note: sequence extracted from NCBI backbone (NCBIP:118488)
C;Superfamily: cytokine receptor homology
C;Reywords: transmembrane protein
 Query Match
6.4%; Score 277.5; DB 2;
Best Local Similarity 22.7%; Pred. No. 1.9e-11;
Matches 112; Conservative 82; Mismatches 227;
A; Map position: 5q11-5q11
C; Superfamily: cytokine receptor homology
C; Keywords: glycoprotein; membrane protein
F; 134-316/Domain: cytokine receptor homology <CRS>
 786 LRISSSVKKYYIHG 799
 471 QQEDGTVHRTYLRG 484
 A; Experimental source: liver
 A; Molecule type: mRNA
A; Residues: 1-918 <WAN>
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| OY 448 RWSTSTIQSLAESTLQLRYHRSGLYCSDIPSIHPISEPKDCYLQSDGFYECIFQP 502    1 | Oy 766 KLMYFILEWK                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 142 CQWEDGPETHLPTSFTLKSFKSRGNCQTQGDSILDCVPKDGQS 500FQPIFLLSGYTMWIRINHSLGSLDSPPTCVLPDSVVKDLPPSSVKAEIT 185 HCCIPRKHLLLYQNMGIWVQAENALGTSMSPQLCLDPMDVVKLEPPMLFTMDPSPEA-AP 549 INIGLLKISWEKPVFPENNLQFGIRYGLSGKEVQWKWYEVYDAKSKSVSLPVP 1          |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 134-315,  Query Matches  327  14  375  73  73  429  120  481  168       | Db 223 PPHNLSYTNSEELSSILKLAWYNSGLDSILRLKSDIQYRTKDASTWIQVPLEDTV 277  Qy 593 SKSVSLPVPDLCAVYAVQVRCKRLDGLGYWSNWSNPAYTVVMDIKVPMRGPEFWRIIN 650  1 | PESULT 11 A34898 granulocyte colony-stimulating factor precursor - mouse C;Species: Mus musculus (house mouse) C;Decies: Mus musculus (house mouse) C;Decies: Mus musculus (house mouse) C;Deteis: Mus musculus (house mouse) C;Date: 20-Jul-1990 #sequence_revision 20-Jul-1990 #text_change 05-Nov-1999 C;Accession: A34898 R;Fukunaga, R: 1shizaka-ikeda, E:; Seto, Y:; Nagata, S. Cell 61, 341-350, 1990 A;Title: Expression cloning of a receptor for murine granulocyte colony-stimulating fact A;Reference number: A34898; MUID:90235283 A;Accession: A34898 A;Stetus: preliminary A;Molecule type: mRNA A;Stetus: Preliminary A;Molecule type: mRNA A;Cross-references: G8:M58288; NID:9193454; PIDN:AAA37673.1; PID:9193455; G8:M32699 C;Keywords: transmembrane protein | Query Match 5.6%; Score 246.5; DB 2; Length 837; Best Local Similarity 22.4%; Pred. No. 2.4e-09; Matches 118; Conservative 79; Mismatches 210; Indels 119; Gaps 25;  Qy 337 PPRILTSVGSNVSFHC-IYKKENKIVPSKEIVWMMNLAEKIPQSQYDVVSDHVSKVTF 393 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                           | · · · · · · · · · · · · · · · · · · ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | i en Some Albert Spage V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| Db 396 TFHLPSEAQEVALVAXNSAGTSRPT-PVVFSESRGPALTRLHAMARDPHSLWVGWE 450  Qy 762 PSDYKLMYFIIEW 774    ::      ::      bb 451 PPNPWPQGYVIEW 463  RESULT 14  C38252  granulocyte colony-stimulating factor receptor precursor, long form - human N;Contains: granulocyte colony-stimulating factor, long form; granulocyte colony-stim C;Species: Homo sapiens (man) C;Date: 14-Jun-1991 #sequence_revision 30-Jan-1993 #text change 05-Now-1900 | C; Accession: C38252; A38252; JH0330; A64686; S68332; S21607 R; Fukunaga, R.; Seto, Y.; Mizushima, S.; Nagata, S. Proc. Natl. Acad. Sci. U.S.A. 87, 8702-8706, 1990 A; Title: Three different mRNAs encoding human granulocyte colony-stimulating factor r A; Reference number: A3852; MUID: 91062348 A; Reference number: A3852; MUID: 91062348 A; Recession: C38252 A; Status: preliminary A; Molecule type: mRNA A; Residues: 1-680 - FUK A; Note: clones pHG11 and pHG5 A; Note: clones pHG11 and pHG5 A; Note: clone pHG3 A; Residues: 1-680, 708-863 - FUZ A; Residues: 1-680, 708-863 - FUZ A; Residues: 1-680, 708-863 - FUZ A; Reference number: JH0329; MUID: 91079757 A; Reference number: JH0329; MUID: 91079757 A; Reference number: JH0329; MUID: 91079757 A; Residues: 1-680, 708-863 - FUZ A; Reference number: JH0329; MUID: 91079757 A; Residues: 1-680, 708-863 - FUZ A; Reference number: JH0329; MUID: 91079757 A; Residues: 1-680, 708-863 - FUZ A; Residues: L-680, 708 | A.Cross references: GB:X55721; NID:g31696; PIDN:CAA39253.1; PID:g31697 R.Seto, Y.; Fukunaga, R.; Nagata, S. J. Immunol. 148, 259-266, 1992 A.Title: Chromosomal gene organization of the human granulocyte colony-stimulating fa A.Rcession: A46486 A.Rcession: A46486 A.Status: preliminary A.Molecule type: DNA A.Residues: B55-863 <set> A.Cross-references: GB:S71484; NID:g240883; PIDN:AAB20660.1; PID:g240884 A.Residues: B55-863 <set> A.Cross-references: GB:S71484; NID:g240883; PIDN:AAB20660.1; PID:g240884 A.Residues: B55-863 <set> A.Cross-reference extracted from NCBI backbone (NCBIN:71484, NCBIP:71485) A.Rote: Sequence extracted from NCBI backbone (NCBIN:71484, NCBIP:71485) A.Rote: Biochem. Biophys: 324, 3364, 3364, 1995, A.Title: Extracellular domain of granulocyte-colony stimulating factor receptor. A.Rocession: S68331; MUD:96132662 A.Molecule type: protein</set></set></set> | A;Gene: GDB:CSF3R A;Gene: GDB:CSF3R A;Gene: GDB:CSF3R A;Gene: GDB:CSF3R A;Gene: GDB:CSF3R A;Gene: Ip35-134.3 C;Keywords: alternative splicing; glycoprotein; transmembrane protein E;1-24/Domain: signal sequence fstatus predicted <sig> E;2-863/Product: granulocyte colony-stimulating factor receptor, long form fstatus predicted <escacomain: <extacomain:="" <tym="" extracellular="" fstatus="" predicted=""> E;25-627/Domain: extracellular fstatus predicted <tym> E;654-863/Domain: intracellular fstatus predicted <tym> E;654-863/Domain: intracellular fstatus predicted <int> E;93,128,134,389,474,579,610/Binding site: carbohydrate (Asn) (covalent) fstatus predicted <intacome (associated="" 22.7%;="" 4.9e-09;<="" no.="" pred.="" similarity="" td=""></intacome></int></tym></tym></escacomain:></sig> |
| Db 292 YELCGLLPATAYTLQIRCIRWPLPGHWSDWS-PSLELRTTERAPTVRLDTWWR 343  Qy 651 GDTWKKEKNYTLLWRDSLCSVQRYVINHHTSCNGTWSEDVGHTKF 701                                                                                                                                                                                                                                                                                                                | RESULT 13 JH0329 Granulocyte colony-stimulating factor receptor D7 precursor - human C;Species: Homo sapiens (man) C;Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text_change 05-Nov-1999 R;Larsen, A.; Davis, T.; Curtis, B.M.; Gimpel, S.; Sims, J.E.; Cosman, D.; Park, L.; Sor A;Title: Expression cloning of a human granulocyte colony-stimulating factor receptor: a A;Reference number: JH0329; MUID:9107957 A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaR> A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: 1-783 cidaRs A;Residues: | Query Match         5.6%; Score 242.5; DB 2; Length 783;           Best Local Similarity         22.7%; Pred. No. 4.3e-09;           Matches 112; Conservative 75; Mismatches 183; Indels 123; Gaps 25;           Qy 341 LTSVGSNVSFHCIYKKE-NKIVPSKEIVWMMLAEKIPQSQYDVVSD-HVSKVTFFNLN 397           :     : :     :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Db 205 WASDMPLECAIHFVEIRCYIDNLHFSGLEEWSDWSPVKNISWIPDSGTKVFPQDKVILVG 264  Qy 346 SNVSFHCIYKKENKIVPSKEIVWWMNLAEKIPGSQYDVVSDHVSKVTFFNLNETKPR 402    ::: | 367 TSYTLVESFSGKYVRLKRAEAPTNES | Db 524 NKKQHLTTEAS-PSKGPDTWRENSSDGKNLIIYWRPLPINEANGKILSYNVS 574  Qy 687 CNGTWSEDVGNHTKFTFLWTEQAHTVTVLAINSIGASVANFNLTFSWPMSKVNIV 741 | Search completed: October 22, 2001, 16:04:59<br>Job time: 69 sec |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                |                                                                                                                                                                                                                        |                                                                                                                                                                                   |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Matches 112; Conservative 75; Mismatches 183; Indels 123; Ga 341 LTSVGSNVSFHCIXKKE-NKIVPSKEIVWWMNLAEKIPQSQYDVVSDHVSKVTFFNLN :                        | OS III                         |                                                                                                                                     | Db 451 PPNPWPQGYVIEW 463 RESULT 15                               | leukemia inhibitory factor receptor - human C; Species: Homo sapiens (man) C; Species: Homo sapiens (man) C; Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 05-Nov-1999 C; Accession: S17308 R; Gearing, D.P.: Thut, C.J.; VandenBos, T.; Gimpel, S.D.; Delaney, P.B.; King, J.; Price EMBO J. 10, 2839-2848, 1991 A; Title: Leukemia inhibitory factor receptor is structurally related to the IL-6 signal. | A;Reference number: S1/308; MUID:92007727 A;Accession: S1/308 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-1097 <gea> A;Residues: 1-1097 <gea> A;Cross-references: GB:X61615; NID:934365; PIDN:CAA43805.1; PID:934366</gea></gea> | Ouery Match  Socie 221.5; DB 2; Length 1097;  Best Local Similarity 20.0%; Pred. No. 2e-07;  Matches 143; Conservative 127; Mismatches 292; Indels 153; Gaps 33;  Oy 161 LLYVLPEVLEDSPLVPQKGSFQMVHCNCSVHECC 194  This: | 195ECLVPVPTAKLNDTLLMCLKITSGGVIEQSPLMSVQPINMVKPDPPLGLHMEIT-  190 CYQLEKTSIKIPALSHGDYEITINSLHDFGSSTSKFTLMEQNVSLI-PDTPEILNILSADF  249 DDGNLKISWSSPPLVPFPLOXOVKYSENSTTVIREADKIVSATSIL | :  : |